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36TH CONGRESS, 1st Session. } SENATE. { Ex. Doc. No. 52.

STATISTICAL REPORT

ON THE

SICKNESS AND MORTALITY

IN THE

ARMY OF THE UNITED STATES,

COMPILED FROM

THE RECORDS OF THE SURGEON GENERAL'S OFFICE;

EMBRACING

A PERIOD OF FIVE YEARS,

FROM JANUARY, 1855, TO JANUARY, 1860.

PREPARED UNDER THE DIRECTION OF

BREVET BRIGADIER GENERAL THOMAS LAWSON,

SURGEON GENERAL UNITED STATES ARMY,

BY

RICHARD H. COOLIDGE, M. D.,

ASSISTANT SURGEON U. S. ARMY.

WASHINGTON:
GEORGE W. BOWMAN, PRINTER.
1860.

In the Senate of the United States,

June 8, 1860.

Resolved, That the "Statistical Report on the Sickness and Mortality in the United States Army," with the report of the Secretary of War communicating the same, in compliance with a resolution of the Senate, be printed; and that five thousand additional copies thereof be printed; three thousand five hundred of which for the use of the Senate, and one thousand five hundred for the use of Medical Department of the army; with the map.

Attest:

ASBURY DICKINS,

Secretary.

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REPORT

OF

THE SECRETARY OF WAR,

COMMUNICATING,

In compliance with a resolution of the Senate, a copy of the Statistical Report on the Sickness and Mortality in the Army of the United States, for the last five years.

WAR DEPARTMENT,
June 5, 1860.

SIR: I have the honor to transmit, herewith, a report of the Surgeon General, communicating a copy of the paper called for by the resolution of the Senate, dated the 20th March last, by which the Secretary of War is requested "to furnish the Senate with a copy of 'the Statistical Report on the Sickness and Mortality of the Army of the United States,' embracing the period of five years, from 1855 to 1860, in continuation of the report of the Surgeon General communicated to the Senate in 1856."

Very respectfully, your obedient servant,

JOHN B. FLOYD,
Secretary of War.

Hon. J. C. BRECKINRIDGE,
President of the Senate.

SURGEON GENERAL'S OFFICE,
June 4, 1860.

SIR: In obedience to your instructions I have caused to be prepared, and herewith respectfully submit, a Statistical Report on the Sickness and Mortality in the Army of the United States, embracing a period of five years from January 1, 1855, to January 1, 1860, in continuation of a similar report communicated to the Senate, in 1856, by the Hon. Jefferson Davis, Secretary of War.

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The duty of compiling this report from the records of this office devolved upon Assistant Surgeon Richard H. Coolidge, United States Army, whose letter announcing its completion is transmitted for your information respecting the general arrangement of the work.

I have the honor to be, very respectfully, your obedient servant,

TH. LAWSON,
Surgeon General.

Hon. JOHN B. FLOYD,
Secretary of War.

SURGEON GENERAL'S OFFICE,
Washington, D. C., June 4, 1860.

SIR: I have to announce the completion of the Statistical Report on Sickness and Mortality in the Army of the United States, compiled from the records of this office, for a period of five years, from January, 1855, to January, 1860.

The first Statistical Report on Sickness and Mortality in the Army, compiled under your direction, covered a period of twenty years, from January, 1819, to January, 1839, and was published in 1840. The second report, embracing a period of sixteen years, from January, 1839, to January, 1855, was published in 1856, by order of the Senate. The report now submitted makes the series complete from the first organization of the Army Medical Bureau to the commencement of the present year.

The general plan heretofore adopted, viz: that of considering the statistical and topographical details of the military posts in geographical divisions and regions having similar climatological features, has been followed in this report.

This course has enabled me to include, in the abstracts and tables of the present report, the aggregate results for each region, as given in the report of 1856, thereby enhancing the value of the statistics by extending them over a period of twenty-one years, and not perceptibly increasing the size of the work.

The abstracts for the several regions have been compiled from the original quarterly reports of sick and wounded, required of medical officers on the 31st of March, 30th of June, 30th of September, and 31st of December, annually, and are for years commencing on the 1st day of January and ending on the 31st day of December. The final consolidated abstract, exhibiting the total amount of sickness and mortality in the whole army, is compiled from your annual reports, which are required by law to be rendered for the government fiscal year, commencing on the 1st of July and ending the 30th of June.

In connection with this report, the results of the meteorological observations taken by the officers of the Medical Department of the Army from January, 1855, to January, 1860, arranged in monthly tables and annual summaries, are respectfully submitted. This completes the series of army meteorological observations from 1819 to 1860, a period of forty-one years.

I have also to submit the accompanying outline map of the United States, designed to show

the most prominent geographical features of the country, the limits of the military departments, and the positions of the military stations. A similar map has accompanied each of the previous reports on sickness and mortality.

I have the honor to be, very respectfully, your obedient servant,

RICHD. H. COOLIDGE,

Assistant Surgeon U. S. Army.

Brevet Brig. Gen. TH. LAWSON,

Surgeon General U. S. Army.

STATISTICAL REPORT

ON THE

SICKNESS AND MORTALITY OF THE ARMY OF THE UNITED STATES.

For the purposes of this report, the military posts of the United States have been arranged in the following geographical divisions: the Northern Division, which includes that portion of the United States lying north of the fortieth degree of latitude, and east of the Rocky Mountains; the Middle Division, that portion lying between the thirty-fifth and fortieth parallels of latitude; the Southern Division, that between the thirtieth and thirty-fifth degrees of latitude. In addition to these, are the divisions of Florida, Texas, New Mexico, California, Oregon, and Washington Territory and Utah.

These principal divisions have been subdivided into regions, each distinguished by peculiar local or climatological features.

NORTHERN DIVISION.

NORTH ATLANTIC REGION—COAST OF NEW ENGLAND.

This region extends from Eastport, Maine, to New London, Connecticut, and includes the following stations, viz: Fort Sullivan, near Eastport; Fort Preble, Portland harbor; Fort Constitution, Portsmouth harbor; Fort Independence, Boston harbor; Fort Adams, Newport harbor; and Fort Trumbull, on the right bank of the river Thames, one mile below New London.

Brief descriptions of the localities of these forts will be found in the report of 1856. The only stations that have been occupied by troops during the period now under review are Forts Independence and Adams.

DISEASES.

The principal diseases and causes of death among the troops stationed in this region are exhibited in Abstract No. 1, for this division. Following the plan of the report of 1856, no attempt will be made to analyze the general abstracts, further than to present those main features that are necessary to a comparison of the abstracts from the several regions with the view of showing the relative frequency of certain classes of diseases in different climates. For this purpose, summaries will be given of fevers; of diseases of the organs connected with the digestive system; and of diseases of the respiratory system.

The following table, compiled from the abstract for this region, shows the aggregate mean strength of the forces, the number of cases of sickness treated, the deaths, and the ratio of cases and deaths for 1,000 of mean strength, for a period of twenty-one years, from January, 1839, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	4,493	1,758	11	391	2.4
Second quarter	4,686	2,023	12	432	2.5
Third quarter	4,630	2,494	10	539	2.2
Fourth quarter	4,308	1,573	7	365	1.6
Annual ratio	4,529	7,848	40	1,755	8.8

It will be perceived from the foregoing data, that the average annual proportion of cases of disease in this region, to the number of officers and men, was 1.75 to 1; that the ratio of

deaths to the number of troops was 1 in 113, or 0.88 per cent.; and that the proportion of deaths to the number of cases treated was 1 to 196.20, or 0.50 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,493		4,686		4,630		4,308		4,529			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	14	0	10	0	10	0	8	0	42	0	0 in 42	9
Febris intermittens quotidiana	23	0	42	0	27	0	27	0	119	0	0 in 119	26
Febris intermittens tertiana	99	0	96	0	59	0	44	0	270	0	0 in 270	59
Febris intermittens quartana	9	0	5	0	3	0	2	0	19	0	0 in 19	4
Febris remittens	39	0	32	0	18	0	4	0	93	0	0 in 93	20
Febris typhosa (typhoid)	3	1	9	0	5	0	6	1	23	2	1 in 11	5
Febris typhosa nervosa	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Total	168	1	194	0	113	0	91	1	566	2	1 in 283	125

NOTE.—In this, and all similar tables, decimal quantities will generally be omitted, and the nearest whole number recorded.

Although the repetition of the statements made in the report of 1856 will be avoided as far as is practicable, it seems necessary to a proper understanding of the statistics of fever above presented, to insert the following extract from that report:

"It is believed that this table, and those of the same form which follow, are sufficiently comprehensive not to require a statement in detail of the facts presented. Unless, therefore, the statistical results are calculated to lead to erroneous conclusions, no special analysis will be given; nor will any attempt be made to explain or reconcile anomalous results, unless the means for so doing are found in the original records.

"In the present instance some comment is necessary, as it appears from the table that intermittent and remittent fevers are not uncommon in this region, a result not to be expected from the medical topography of the stations, and one, too, at variance with a previously published report.* On examining the abstract, it will be seen that fevers of intermittent and remittent types prevailed principally during the first, second, and third quarters of 1849; in the fourth quarter of 1850, and in the first three quarters of 1851 and of 1854. Turning to the original reports, it is ascertained that, in 1849, these diseases occurred in men who had recently served in Mexico; and in 1850, 1851, and 1854, in troops transferred from Florida to Forts Adams and Independence. The medical officers report that those diseases did not originate at these posts; and the remark of Assistant Surgeon Sargent, that 'in thirty-three years' practice at Fort Constitution, he had known but one case of intermittent fever which was not of foreign origin,' will, as a general rule, apply to all the military stations on the coast of New England.

"An examination of the abstract will suffice to show the certainty with which the liability to attacks of intermittent yields to the influence of a residence in this region, though the fact is more conclusively demonstrated by the original reports. The troops from Mexico reached the New England stations in September, 1848, and in the following month intermittents are reported, disappearing almost entirely within the succeeding twelve months. In December, 1850, troops arrived from Florida, bringing with them this class of fevers, which were eradicated within the following year."

* Statistical Report on the Sickness and Mortality in the Army of the United States. Prepared under the direction of Thomas Lawson, M. D., Surgeon General, by Assistant Surgeon Samuel Forry, M. D.: Washington, 1840.

The statistics of the last five years, as presented in Abstract No. 1, afford additional evidence of the correctness of the statements made in the above extract. It will there be seen that few, if any, cases of intermittent or remittent fever are reported, except in the first, second, and third quarters of 1857; and the original records show that those fevers occurred at Fort Independence, commencing in January, 1857, soon after the arrival of company L, second artillery, from Florida, where it had been serving since August, 1849, and for the latter portion of that time at Fort Myers, a very unhealthy station.

ERUPTIVE FEVERS have been very rare; seventeen cases of erysipelas and one of rubeola constituting the entire number reported in twenty-one years, in commands averaging annually 215 officers and men.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOUTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,493		4,686		4,630		4,308		4,529			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Diarrhœa	91	2	105	1	305	0	81	0	582	3	1 in 194	128
Dysenteria acuta	28	0	34	0	187	1	57	0	306	1	1 in 306	67
Dysenteria chronica	15	0	15	0	12	0	7	0	49	0	0 in 49	11
Enteritis	0	0	1	0	1	1	0	0	2	1	1 in 2	0.44
Hepatitis acuta	1	0	1	0	0	0	1	0	3	0	0 in 3	0.66
Hepatitis chronica	1	0	4	0	3	0	0	0	8	0	0 in 8	1.76
Obstipatio	28	0	48	0	82	0	31	0	189	0	0 in 189	41
All other diseases of this class	94	0	132	0	255	1	122	3	603	4	1 in 151	133
Total	258	2	340	1	845	3	299	3	1,742	9	1 in 193	384

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,493		4,686		4,630		4,308		4,529			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	17	0	22	0	7	0	17	0	63	0	0 in 63	14
Cartarrhus	386	1	274	0	292	0	271	0	1,223	1	1 in 1,223	270
Phthisis pulmonalis	9	1	6	2	1	2	5	1	21	6	1 in 3.5	4.6
Pleuritis	39	1	37	0	23	0	23	0	122	1	1 in 122	27
Pneumonia	19	0	14	0	6	0	10	0	49	0	0 in 49	10
All other diseases of this class	10	1	14	0	11	0	8	0	43	1	1 in 43	9
Total	480	4	367	2	340	2	334	1	1,521	9	1 in 169	336
Rheumatismus	72	0	105	0	101	0	108	0	386	0	0 in 386	85

The following passages in Assistant Surgeon Richard F. Simpson's sanitary report from Fort Adams, for December, 1858, are the only ones of general interest that occur in the reports from this region, during the last five years:

"The hospital and barrack accommodations are all casemate; they are exceedingly damp, and it is necessary, to make them at all comfortable, to keep fires night and morning, even in midsummer. The climate, notwithstanding the heavy sea-fogs in summer, and the frequent changes of temperature in the fall, winter, and spring, is most healthful, and if the accommodations for officers and men were any other than miserably damp casemates, Fort Adams would be more salubrious than any other permanent post in the United States.

"One peculiarity attending many cases of utero gestation in this section, not only among the women of the garrison, but also in the city of Newport, is, that it is frequently prolonged from two to five weeks beyond the ordinary period, or beyond the calculations of the woman. This is interesting in a medico-legal point of view. In one case that came under my observation, and in which there was no deception, the child was not born until eleven months after the last appearance of the catamenia. It is impossible to account for this peculiarity, but I have abundant evidence to convince me that such is the fact."

NORTH ATLANTIC REGION—NEW YORK HARBOR.

Three military posts in this harbor have been occupied by troops during the period embraced in this report: Fort Columbus, on Governor's Island; Fort Wood, on Bedloe's Island; and Fort Hamilton, on the southeast corner of Long Island, at the Narrows.

For the medical topography and diseases of these posts, reference is made to the report of 1856.

DISEASES.

The following table, compiled from Abstract No. 2 of this division, gives the amount and ratio of sickness and mortality among the troops stationed in the harbor of New York during a period of twenty-one years, from January, 1839, to January, 1860:

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	12,251	8,146	63	665	5.1
Second quarter	12,630	9,332	43	739	3.4
Third quarter	13,632	14,988	101	1,099	7.4
Fourth quarter	12,913	8,518	64	659	5
Annual ratio	12,856	40,984	271	3,188	21
Exclusive of cholera		40,899	237	3,181	18.4

The average annual proportion of cases of disease to the number of officers and men, was 3.18 to 1; the ratio of deaths to the strength of the command was 1 in 47, or 2.10 per cent.; and the proportion of deaths to the number of cases treated was 1 in 151.23, or 0.66 per cent. Exclusive of deaths from cholera, the mortality was 1 in 54, or 1.84 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	12,251		12,630		13,632		12,943		12,856				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris continua communis	9	0	54	1	25	0	11	1	99	2	1 in	49	7
Febris intermittens quotidiana	102	0	185	0	299	0	183	0	769	0	0 in	760	59
Febris intermittens tertiana	351	0	519	0	639	0	456	0	1,956	0	0 in	1,956	152
Febris intermittens quartana	12	0	23	0	87	0	19	0	141	0	0 in	141	11
Febris remittens	37	0	42	2	79	5	66	4	224	11	1 in	20	17
Febris typhus et typhoides	15	7	15	4	11	1	9	9	50	21	1 in	2+	1
Febris typhus icterodes	0	0	0	0	71	14	6	2	77	16	1 in	4.8	6
Total	526	7	838	7	1,193	20	750	16	3,307	50	1 in	66	256.4

YELLOW FEVER.—In the summer of 1856 yellow fever appeared, *for the first time*, among the troops stationed in the harbor of New York. The disease commenced at Fort Hamilton, in July, 1856. The first death from it occurred on the 2d day of August; the last on the 9th day of September. Total number of cases, twenty-seven; deaths, five.

At Fort Columbus the disease prevailed in August and September, the first death having been reported on the 14th of August, the last on the 3d of October. Total number of cases, forty-seven; deaths, ten.

For a detailed statement of this disease as it occurred at Fort Columbus, reference is made to the following report:

REPORT ON YELLOW FEVER AT FORT COLUMBUS, N. Y.

Assistant Surgeon La Fayette Guild: 1856.

YELLOW FEVER, so long the scourge of the tropics, has, for the last few years, been steadily and progressively encroaching upon the temperate regions of our country. Although it has manifested itself, in years past, in our northern cities, yet its visitations had been so few and far between that the North was lulled into a sense of security from its ravages; and many, even after its victims had numbered hundreds, aye thousands, still hesitated to give their own consent that the destroyer was in their midst. So fixed, indeed, had the disease become in the southern or tropical climates, that many of the profession at the North scouted the idea that it could leave its accustomed haunts and seek a new field for its operations of death and desolation amongst the hitherto salubrious towns of the North. But, alas! the bereaved city of Norfolk is still shrouded in mourning, and this vicinage will long bear painful evidence that the deadly visitor has stalked abroad in uncontrolled license. Its visitations to the North, rare and unexpected as they have been, attach to the disease a new interest, and afford a more extended opportunity for the profession to search for its causes, to study its nature, and from practical observation to adopt those means, if possible, to stay its unrelenting and devastating career. No single complaint in the whole catalogue of diseases has commanded so much attention from the profession of the United States; and, although the combined efforts of the ablest, the most experienced, and the most eminent of its members have accomplished but little, comparatively, towards averting its evils, yet none, however obscure or humble they may be, should be deterred from giving their assistance to a work so fraught with good to the human race; and if all whose misfortune it is to witness its ravages would contribute their share to the accomplishment of this much desired object, then might we hope for its attainment, if it be within the compass of man. With the

view, then, of contributing my small mite for the benefit of my profession, or that of the human family at large, I waive all scruples of modesty or of conscious incompetency, and adopt this method of arranging in some tangible form a few facts of a practical nature which have fallen under my observation during the prevalence of the epidemic as it appeared on this island.

Early in the month of September I was ordered to report for duty at Fort Columbus, Governor's Island, and on the 5th of that month I assumed the duties pertaining to the medical officer of this military station. At this time yellow fever was prevailing at Fort Hamilton, at Brooklyn and its environs, and at Governor's Island. Assistant Surgeons Swift, Abbott, and Vollum, United States Army, preceded me in my duties here, the two latter of whom I relieved. Assistant Surgeon Abbott suffered with an attack of the disease, being the only officer at the post who was attacked. In the early part of the epidemic these medical officers labored with unremitting zeal in the discharge of their important responsibilities; and it is to be regretted that they did not leave behind them some detailed account of their valuable labors. The cases which I found on my arrival here represented the disease in all its phases—from the very first stage to that of death or convalescence. From this time new cases continued to occur until the accession of cool weather, the last two cases of the disease making their appearance on the 9th day of October. As the epidemic made its appearance previous to my arrival, I will have to rely for my information of the early part of the epidemic upon the hospital register and prescription books, which contain a simple record of the names of patients, dates of attack, deaths or recoveries, and remedies used in their cases, without any comment whatever.

As the disease was almost exclusively confined to certain localities, very much restricted in limits, it is proper, for a full understanding of the circumstances attending its prevalence, that I should give briefly the topographical and meteorological conditions of the island during the epidemic.

Governor's Island, in latitude 40° 42′, longitude 74° 9′, is situated in New York harbor, at the junction of North and East rivers with the bay, and is about twenty-two feet above low-water mark. The city of Brooklyn encircles almost one half of the island, and lies in an easterly, southeasterly, and southerly direction, separated by an arm of the bay measuring, in its narrowest part, not more than a quarter of a mile, and in its widest about one half a mile. To the north of the island is the city of New York, about one mile distant. Six or seven miles distant, in a south-southwesterly direction, are situated Fort Hamilton and the Quarantine grounds. The island is almost circular in form, about one mile in circumference, and consists of alluvial soil. The soil is very fertile, and the growth of vegetables and grass is abundant and luxuriant. Fort Columbus, the main fortification on the island, is placed upon the northern side, about two hundred feet from the water's edge, and from this fort, in every direction, to the water there is a regular artificial slope, affording so perfect a drainage that pools of stagnant water are never known upon any portion of the island.

The main work communicates, by a covered way, with Castle Williams, which stands boldly out upon the extreme northwestern point of the island, and the base of which is washed by the waves of the bay. These two works have spacious quarters for the men, and are garrisoned by a large majority of the troops stationed here. On the southern portion of the island is located another fortification of smaller dimensions, known as South Battery, occupied by the drummer boys, numbering about seventy, and by one or two soldiers' families. Near the South Battery, and to its east, stands the hospital, and in close proximity to the hospital is a row of old dilapidated frame tenements occupied by soldiers' families, and familiarly known as "Rotten Row." South Battery, the hospital, and "Rotten Row," are located near the water, occupying the nearest position to the city of Brooklyn, and the most exposed of any other position of the island to the southeasterly, southerly, and southwesterly winds. From this position we have an extensive and uninterrupted view of the bay to the south, in the direction of the Quarantine, Fort Hamilton, and the southwestern portion of the city of Brooklyn. No objects intervene to obstruct

southerly and southwesterly winds. The subjoined abstract from the meteorological register of this hospital will show the climatic condition of the island during the months of July, August, September, and October, 1856, contrasted with that of the corresponding months of 1855.

METEOROLOGICAL ABSTRACT.

Abstract from the Meteorological Register at Fort Columbus, New York harbor, for the months of July, August, September, and October, 1855.

Date.	Monthly mean of thermometer.				Monthly mean of barometer.				Summary of winds—Direction and number of observations.								No. of days fair.	No. of days cloudy.	No. of days rain.	Quantity of rain.
	Sunrise.	9 A. M.	3 P. M.	9 P. M.	Sunrise.	9 A. M.	P. M.	9 P. M.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
1855.																				Inches.
July	70.25	74.77	80.29	72.25	30.194	30.237	30.193	30.196	5	23	8	17	2	41	12	13	11.50	19.50	17	6
August	66.23	70.58	75.13	69.84	....	....	....	....	10	26	12	17	5	28	5	21	16.50	14.50	10	2.55
September	60.05	65.00	71.16	60.15	....	....	....	....	3	30	6	6	2	31	13	35	17.50	12.50	8	1.30
		7 A. M.	2 P. M.	9 P. M.		7 A. M.	2 P. M.	9 P. M.												
October	....	50.07	58.02	53.19	....	30.[illegible]	30.077	30.103	3	7	3	7	3	25	11	31	16.33	14.66	9	5.50

Meteorological abstract for the months of July, August, September, and October, 1856.

Date.	Monthly mean of thermometer.			Monthly mean of barometer.			Summary of winds—Direction and number of observations.								No. of days fair.	No. of days cloudy.	No. of days rain.	Quantity of rain
	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
1856																		Inches.
July	71.77	85.19	74.58	30.115	30.108	30.191	3	7	3	9	6	36	6	22	22	9	8	2.50
August	69.12	76.67	69.35	30.04	30.044	30.085	5	2	3	14	4	18	11	35	16.33	14.66	9	7.60
September	62.56	72.36	65.06	30.199	30.208	30.218	3	16	1	19	13	27	4	7	16.33	13.66	7	4.00
October	49.30	60.39	51.51	30.272	30.240	30.270	5	19	2	7	2	18	12	28	15.66	15.33	8	1.70

The 18th day of July, as indicated by the thermometer at this post, was the hottest day of the year. The daily mean temperature of that day was 85.66°—the thermometer standing at 95° at 2 o'clock, P. M., and at 81° at the hours of 7, A. M., and 9, P. M., respectively. On the five days immediately following the thermometer ranged from 77° to 85° at 2 o'clock, P. M., and the daily mean temperature from 73.33° to 76.66°. However, from the 24th day to the 28th, inclusive, the thermometer ranged from 93° to 95° at 2 o'clock, and the daily mean from 82.33° to 85°. And it was on the 29th day of the month that the first case of yellow fever occurred. The patient was a young woman, aged eighteen, who resided in "Rotten Row," and just previous to her attack had returned from a visit to Fort Hamilton. She died of black vomit on the 2d of August. On the 1st of August three other cases occurred, one in "Rotten Row" and two from "South Battery." And in these two places the disease fixed its abode, as it were, almost exclusively, and continued until the number of cases amounted to sixty-three, fifteen of whom died; a mortality of one in four. Very few cases occurred on other parts of the island besides "South Battery" and "Rotten Row," and those that did thus occur, were, in almost every instance, in persons who were in the habit of visiting "Rotten Row." In "South Battery" the disease continued its ravages until early in September, when the occupants were removed to quarters in another portion of the island; only two cases occurring among them after their removal. In "Rotten Row" it lingered until checked by cool weather on the 9th of October. From the 1st to the 17th day of August the daily mean temperature ranged from 70.33°—every day but one showing a daily mean temperature of over 70°—the third day of the month being

the hottest day. For the fourteen remaining days of this month the thermometer on three days only indicated a mean temperature exceeding 70°. During the month of September only six days showed a daily mean temperature exceeding 70°, and those days were the 7th, 8th, 9th, 11th, 12th, and 21st. In October the daily mean temperature never exceeded 64°; and from the 1st to the 9th, on the latter of which days, the last cases of the disease occurred—the mean temperature ranged from 51° to 64°. By comparing the temperature during the months in which the fever prevailed with that of the corresponding months of last year when no epidemic existed, I have found the difference so small that we may not be justified in attributing to it much, if any, influence upon the production or diffusion of the disease.

As much influence has been attached by some authors to the barometrical condition of the atmosphere during the prevalence of epidemic diseases, it may not be improper for me to examine more fully into the changes that took place on this island during the yellow fever, and to ascertain, if possible, whether such changes in the pressure of the atmosphere bore any relation to the production of the disease. The maximum pressure of the atmosphere during the month of July was 30.290 inches on the 24th day of the month; the minimum was 29.830 on the 12th; giving a range of pressure of .460 of an inch for that month. In August, the maximum was 30.390 on the 27th; minimum, 29.540 on the 20th, the range of pressure being .850 of an inch. In September, the maximum was 30.480 on the 3d of the month; the minimum 29.760 on the 18th, giving a range of pressure of .720 of an inch for the month. In October, the maximum was 30.630 on the 26th; the minimum, 29.000 on the 15th of the month; the range of pressure being 1.630 inches. The barometrical observations for the months of August and September, 1855, are incomplete; and a comparison of the atmospheric pressure for the months of July and October, of that year, only can be made with the observations of the corresponding months of 1856. The maximum pressure for July, 1855, was 30.440 on the 9th of the month; the minimum was 30.000 on the 28th; range, .440. In October, 1855, the maximum was 30.950 on the 18th of the month; minimum, 29.000 on the 24th; range of pressure being 1.950. Thus, by comparing the maximum and minimum atmospheric pressure of the same months of different years, we find the difference in maximum pressure to be: for July, .150, for October, .320; in the minimum pressure to be: for July, .170, for October, .170; and the difference of range in the two years to be: for July, .20, and for October, .320. By this comparison, although not extended into a series of years as might be wished, we discover the difference in the barometrical conditions of the atmosphere in a healthy and in a sickly year to be so small that it is exceedingly difficult to ascribe to it any agency whatever.

Atmospheric humidity has deservedly received important consideration as an etiological agent. It is, undoubtedly, not only an active agent in developing the efficient cause of disease, but its effects upon the human system greatly enhance the susceptibility to morbid impressions.

To the winds also has been ascribed great agency in epidemic disease; and they certainly are most potent means of disseminating the "materies morbi," whose subtle and aeriform particles, we are led to believe, in many instances, are capable of being wafted from one locality to another. It is important then that we should examine more fully into the prevalence of the particular winds and into the hygrometrical and hyetal conditions that obtained here during the disease.

The greatest humidity in July was shown to be on the 20th day of that month, when the thermometer and hygrometer indicated the same degrees, namely: 73.66°, the wind blowing a gentle breeze from the N.W. during the whole day. After the 20th, however, the wind changed to the S.W., and remained almost continuously from that direction until the last day of the month, when it shifted to N. and N.E. For about fourteen days preceding the 29th day of the month, and during the highest continuous temperature of the season, we had no rain at all, the wind keeping almost steadily from the S.W. On the morning, however, of the 29th day it commenced raining slightly, and continued, at intervals, until the afternoon; and during the

night of that date a very severe thunder-storm occurred, unaccompanied by rain. For every day of the month, except the 20th, the difference of the daily mean of the thermometrical and hygrometrical observations varied from about half of a degree to three degrees. August was the rainiest of the four months during which the disease prevailed. The prevailing winds were N.W.; yet, the winds from the S., the S.E., and S.W., often blew, and remained from these southerly directions for several days consecutively. The difference in the thermometer and hygrometer for this month varied from about the half of a degree to three degrees, except on the 26th day, when the daily mean of the two sets of observations was found to be, respectively, 60°.33′. In September, the daily mean of the hygrometrical observations shows that the atmosphere for eleven days of the month was completely saturated with moisture; and on eight of these eleven days the hygrometer indicated, not only no evaporation from the floss silk surrounding its bulb, but showed a higher temperature than the thermometer itself. The winds during the month prevailed from the S.S.E. and S.W. for twenty days out of the thirty. For the first ten days of October the hygrometer ranged daily from about half of a degree to one degree below the temperature indicated by the thermometer, and the prevailing winds were from the northerly directions.

A comparison of these atmospheric changes during the prevalence of the epidemic with those of the corresponding period of the preceding year, when the health of the island was unprecedentedly good, cannot, unfortunately, be fully instituted, on account of the barometrical and hygrometrical observations of 1855 being incomplete, and the present system of meteorological observations having been but recently adopted by the Medical Department of the Army. It is to be hoped, however, that the observations of this year may yet be contrasted with those of succeeding years; and if any agency in the propagation of the late epidemic can possibly be connected with atmospheric conditions and vicissitudes as they presented themselves during its prevalence, the foregoing facts may not be without their value, either in exposing error or developing truth. If any conclusion can be drawn from the foregoing summary of meteorological observations, we may, in my opinion, very justly decide that the condition of the atmosphere could not have exerted any very great agency upon the causation, whatever might have been its influence upon the dissemination of the disease.

The etiology of yellow fever has created much discussion, and in every locality or section of world where the disease has prevailed it has attracted the attention of the profession and given rise to the greatest variety of opinion.

During the late epidemic many believed that it had a local origin, but the majority attributed its origin and dissemination to the ships that arrived here from foreign ports with the disease on board. This difference of opinion I cannot profess to determine, as my observations were confined to Governor's Island. However, with regard to its existence in this garrison, there is satisfactory evidence of its not having been generated on the island, but that its origin was in our vicinity, either on shipboard or on land, and that its causes, whatever they are, being thus eliminated in our neighborhood, were wafted to us by the winds. Facts derived from the observation of simple phenomena have induced me to form this opinion. However, before considering these facts, it may be proper to notice the police of this post during the epidemic, and to examine the circumstances connected with a belief which was entertained by some that articles of bedding thrown overboard from the quarantined ships, floated to the shores of the island, and communicated the disease. The want of cleanliness and the non-observance of strict police regulations unquestionably exert great influence on the production as well as on the promotion and the diffusion of disease; and in searching for the causes of yellow fever, particularly when it prevails in a military garrison, a consideration of the police of the post is of essential importance. Our military stations are generally kept in excellent police. It is the pride, as well as the duty and policy, of commanding officers to keep their posts in a cleanly condition; yet I have never seen so perfect a system of police instituted at any military station as on Governor's Island. The com-

manding officer, Major Backus, seemed peculiarly fitted for his responsible position. His long military service of over thirty years, and his intimacy with the yellow fever at Vera Cruz during the Mexican war, have rendered him familiar with the requirements necessary to the health and comfort of his command, particularly during such an epidemic as we have just passed through. The only locality within the limits of this post at all suspicious of having given rise to the disease *ab initio* is that excrescence of the island "Rotten Row." It is an old wooden shell of a building, with many inmates, and affords more filth than all the rest of the island besides; but the fact of the disease having prevailed among the occupants of one side of the building, to the perfect exclusion of its occupants on the other side, is full of significance, and entirely dismisses from my mind the idea that the epidemic could have had a local origin in "Rotten Row."

The building is of an oblong rectangular shape, divided in its longitudinal diameter by a thin board partition, and on each side of this partition are rooms, the doors and windows of which on one side front to the S.S.W., and those of the other to the N.N.E. The inhabitants of the side opening the S.S.W. suffered most severely—scarcely one escaping an attack, whilst those of the N.N.E. side enjoyed the most perfect immunity. The habits and occupations of those individuals were the same, and if the disease had originated in "Rotten Row," they should most assuredly have been equally liable to an attack. It was entertained by many that articles, such as mattresses, straw, old clothing, &c., which were thrown overboard from the infected ships lying in quarantine, and which drifted to the shores of Governor's Island, were the means of importation of the disease. This opinion gained much plausibility in the minds of many, as it was known that the drummer boys from South Battery, after bathing on the beach, were in the habit of standing or sitting upon these old mattresses for the purpose of dressing themselves. Such a belief, however, can only be predicated upon the assumption that the disease is most decidedly of a contagious nature. If we believe that the articles of bedding from the infected ships at the quarantine ground could drift so many miles with the tide and spread disease on shore wherever they touched, then must the contagion be of the most potent character, and scarcely a single individual on Governor's Island could possibly have enjoyed an immunity from the infection, for the articles not only drifted to the south side of the island, but lodged upon almost every portion of its shores. The length of time required for these articles to drift from the ships in quarantine to the island with the ebb and flow of the tide, when we take into consideration the distance between the two places and the velocity with which the tide flows, necessarily implies a long exposure of these articles to air; sufficiently long, at all events, in my opinion, to dissipate the effluvia or miasm that was supposed to have been hidden in their meshes. Again, if articles of clothing or bedding from the quarantine could have imparted the disease to the occupants of South Battery, why did the disease cease among them as soon as they were removed to another portion of the island? They had the disease amongst them, why did they not carry it with them to their new quarters?

The mattresses and other articles, which drifted to the island, and which were alleged to have propagated the disease, were collected and burned by the police parties of the garrison who were quartered in Fort Columbus and Castle Williams, and who escaped the disease. The police parties handled and otherwise came in contact with these articles—why did they not contract the disease as well as the drummer boys? Furthermore, the first case of the disease which occurred here, was not at South Battery, but in "Rotten Row," and the patient had never been exposed to the cause which was imagined to have arisen from the articles that had drifted from quarantine. These facts carry with them conclusive evidence to my mind, that the bedding, straw, clothing, &c., which drifted to the island, had no connection whatever with the existence of the epidemic.

I think I have shown that there was nothing on Governor's Island that could have given origin to the disease. And if we assent to the old proverb, "ex nihilo, nihil fit," then must we search elsewhere for its causes. All agree that yellow fever can be generated on board of vessels.

Whether the morbific agency depend upon the decomposing timbers, the bilge water, the putrifying cargo, or what not, still the fact is beyond a doubt that the disease can be so produced. The first case that occurred in this harbor last summer was on board of a vessel; and not only did one vessel arrive in this port with the disease on board, but several; and they were all collected and placed in quarantine, whence, in my opinion, the disease was disseminated throughout the different places along the bay that were not protected from the winds that swept over this congregation of infected ships, filling the air with their pestilence. The facts that substantiate this opinion are, that the epidemic broke out simultaneously in different localities on shore, after the ships had been placed in quarantine and the process of unloading and cleaning them had been commenced; that the disease was confined to the southern portion of Governor's Island, and to those habitations which were openly exposed to the winds from the quarantine; that the intervention of thin board partitions, trees, shrubbery, and elevated portions of the ground, which served to shut off these winds, gave to individuals so protected an immunity, and that the removal of the inmates of South Battery to a place where they were protected from these winds, checked the ravages of the disease among them.

I believe yellow fever to be of the same family of diseases as ordinary remittent fever, yet not the same or an aggravated form of the same disease. They are both of malarial origin, generated by the decomposition of organic matter, alike communicable to individuals only by their being exposed to the morbific elements as they arise from the prime source of the disease, and incapable of being communicated by simple contact with the patient suffering with the disease, or with the affluvia arising from his body or from his clothing. The density of the atmosphere, its humidity and its temperature have, in the two diseases, an agency in their diffusion, and in promoting a susceptibility of the human system to their attack, without exerting any influence whatever in their production, except in assisting in organic decomposition, from which process springs the "materies morbi." These doctrinal points of resemblance between the two diseases are not more striking, and are of far less importance than their practical relationship. In their earliest symptoms the differential diagnosis of the two complaints is by no means clear. As a general thing, the patient has the same feeling of malaise, a sense of weariness, headache, pain and aching in the limbs and back, and the fever is usually ushered in by a chill, or sense of chilliness. In yellow-fever districts, where we are expecting the disease, the practitioner may never be embarrassed in forming his diagnosis. But in other places, where the disease is seldom known, much discussion has arisen and will ever arise in fixing upon a line of demarkation in the earliest stages, or in the beginning of an epidemic.

The ability to diagnosticate the two diseases is rendered particularly embarrassing, and the responsibility which rests upon the physician of pronouncing an unequivocal opinion as to the true nature of the disease becomes incalculably great when the commercial interests of large towns and cities are to be jeopardized, or, more than all, when the sick are to be abandoned to their sad fate by their panic-stricken friends and acquaintances. Yet, to the physician, in a practical sense, this difficult diagnosis is of little consequence if his remedies are applied promptly and energetically; for the two diseases, in my opinion, in their early stages, are amenable to the same remedies, varying only in the promptness of their application, and according to the nature of the case. Cases often occur when the patient is suddenly stricken down, stunned and senseless, as with a blow from a heavy weight. Several such cases occurred in my practice here during the recent epidemic; yet, the same alarming and sudden seizure is not at all rare in the bilious remittent or congestive remittent fevers in the highly malarious districts of our southern States. One patient thus attacked and brought to my hospital was supposed to be drunk by his comrades who carried him, and the appearance of the man was, indeed, sufficient to warrant, in the eyes of the inexperienced, the opinion that he was a more fit subject for the guard-house than the hospital.

Among the principal symptoms which distinguish the two diseases may be mentioned the

intense pain in the frontal and orbital regions, the peculiar red, watery, and brilliant appearance, or, a dull, drunken aspect of the eyes, the peculiar odor emitted from the patient, (justly considered, in some instances, as pathognomonic,) and the condition of the tongue. In bilious remittent fever the tongue is furred in its earliest stages, and in very many cases is colored yellow on the very first visit of the physician. In yellow fever the tongue may be, and most generally is, not furred at all; indeed, I do not believe that I have ever seen a thickly furred tongue in the beginning of an attack. It may be contracted and pointed, with fiery red edges and apex, particularly in severe cases, or it may be large, white, and tremulous: when the latter condition of the tongue exists, (that is, when it is large, white, and tremulous,) the cases in my hospital always assumed an adynamic form, and required stimulants and nervines in the early treatment; whereas, the red pointed tongue indicated cases of a sthenic character, and called for prompt and heroic measures in the earliest stages. However, as I before remarked, a very critical and exact diagnosis between yellow fever and bilious remittent fever is not, in my opinion, very essential to the proper treatment.

The treatment which I adopted, and which I have every reason to believe the most satisfactory, was, so soon as a patient reported ill of the fever, to apply cups to the cervical spine and epigastrium, (for in every case there was more or less burning sensation of the stomach, with nausea and vomiting,) and, as soon as convenient, to cover the cupped surfaces with blisters. General blood-letting I never practised, nor did I conceive it necessary in a single case; topical bleeding, by its counterirritant and depletive action, was found necessary in equalizing the temperature and circulation. Immediately after the application of cups and blisters, and when practicable mustard pediluvia, I administered twenty grains of the mild chloride of mercury and twenty grains of the sulphate of quinia, in combination, which was to be repeated every two, three, or four hours, according to the urgency of the symptoms, and until full evacuations from the bowels were obtained. This combination of calomel and quinia is to be followed by oleum ricini or sulphate of magnesia; the oil, if tolerated by the stomach, was probably in most instances more certain in its action, yet the sulphate of magnesia possessed an advantage in being more easily retained, and sometimes even appeared to produce the desired effect when the oil failed. In a few cases, however, both of these latter proved unavailing when the oleum tiglii was resorted to, and even then, occasionally, enemata of solution of chloride of sodium had to be given before a satisfactory condition of bowels could be established. With regard to this particular, however, there was no uniformity; oftentimes the combination of calomel and quinia required no assistance from any other cathartic to produce free and satisfactory purgation. The simple act of combining the two medicines imparted to them an additional efficiency; verifying a well-established rule in therapeutics, that by combining certain medicines, a power of action is attained which they do not possess when administered singly and without such combination. But should irritability of the stomach continue to such an extent that the medicines be rejected, the calomel alone in twenty or thirty grain doses and large enemata of the solution of sodium were administered and perseveringly repeated until the stomach became quiet and retained the mixture of calomel and quinia. After frequent and copious purgation, and after three or four doses of the calomel and quinia had been retained, the calomel was omitted temporarily, and the quinia alone was continued until the peculiar and intense pain of the head was changed into a duller pain wholly unlike the first, and accompanied with a buzzing or ringing sensation. This modified condition of the head symptoms invariably afforded great relief to the patient's sufferings, and gave assurance to the physician that the sulphate of quinia was exerting its constitutional effects, and that the nervous tissue was responding to its curative influence. When this effect of the quinia was accomplished, its doses were diminished, but continued in sufficient quantities to keep up the quininism. If the quinia be discontinued altogether, there is great danger of reaction, or, in other words, the disease will resume its tenor; and, in the third or last stage, no remedies probably can reinstate our patient on vantage ground. Early in the disease symptoms of mental

anxiety, restlessness and nervous irritability prominently presented themselves in many cases. These were treated by adding one fourth of a grain of sulphate of morphia to the combination of calomel and quinia, or by giving camphor julep and liquor ammoniæ acetatis. There were other auxiliary remedies in the early stages which I must not omit to mention, and which, to say the least, contributed much to the comfort of the patient. These were sponging the whole surface with cool or tepid water, as was most agreeable to the patient; small lumps of ice taken into the stomach and drinks of iced lemonade. When yellowness of the skin made its appearance early in the disease, an increased quantity of the calomel was always, in my opinion, indicated. It tended to restore the biliary secretion, to quiet gastric irritability, and to control or subdue the inflammatory action of the mucous coat of the stomach and upper intestines. The sulphate of quinia was not, probably, of such essential service as in those cases where yellowness did not present itself among the earlier symptoms; yet, as a general rule, throughout the disease, in almost every stage, I did not deem it safe to set aside altogether the two great remedial agents, calomel and quinia, either in combination or separately. Very often I found it necessary to discontinue both of them temporarily; but I did so with the full consciousness that their valuable services were liable, at any hour, to be called again into requisition before the recovery of my patient. Those cases which, when first seen by the physician, are characterized by much yellowness of the skin, conjunctiva, &c., have, in my opinion, been neglected or improperly treated in the accession of the disease. Such cases are less susceptible to the effects of the remedies above enumerated; and after the administration of calomel and quinia in large doses, and enemata, if no beneficial influences are speedily perceived, I am most decidedly partial to the expectant method of treatment which the French and Spanish so highly extol, and which finds so much favor in the eyes of our own creole population in the cities on the Gulf of Mexico. In such cases I have found that enemata, ptisans, and the most assiduous nursing are the remedies most successful in assisting nature in her efforts to effect a cure.

Early in the disease, and particularly if the quininism has not been well established, the urinary secretion becomes seriously involved. Not a single case which came under my observation escaped the unpleasant, painful, and often alarming urinary symptoms in a greater or less degree, proportionate, in my opinion, to the constitutional influence which has been obtained from the sulphate of quinia. In some cases, retention of urine existed for twelve hours, and even longer. Many suffered from strangury. The discharge was often of a bloody character, or of a brownish red or black color, and deposited in a very short time a thick ropy sediment; or it was of a light color partially possessing or entirely devoid of its healthy odor, and presenting whitish flocculi or clots floating through it. The secretion always became more scanty than natural, and often produced intense suffering from ardor urinæ throughout the whole extent of the urethral canal. This disordered condition of the urinary organs was invariably accompanied with severe pain in the hypogastric region. The nitrate of potassa dissolved in a decoction of flaxseed, frequently repeated, was highly beneficial in many cases; yet it did not afford that permanency of relief or impart that impetus towards a healthy restoration of the urinary secretion which resulted from the administration of the sulphate of quinia. I found the quinia a most powerful indirect diuretic, or, in other words, a potent restorative of the healthy renal functions. The nervous system, that common chain, by which the relations of the vital properties are established, becoming interrupted, the whole machinery became deranged. And it was by addressing my remedies to the nervous system, the main-spring of the man, that the other subordinate functions of the economy were controlled, and healthy action established. It is thus that the sulphate of quinia acts in restoring the secretions, and I know of no remedy in the Materia Medica so aptly indicated and, when used judiciously, so beneficial in cases such as those in question.

Scarcely a case came under my observation that did not show a strong hemorrhagic tendency In the earliest symptoms hemorrhages frequently occurred, and sometimes continued throughout

the attack. They took place from the nose, the gums, fauces, stomach, lungs, bowels, and bladder; indeed, from all the mucous surfaces. The tinctura ferri chloridi and the plumbi acetas were used to correct this symptom, but the value of these remedies appeared trifling in my hands; and the hemorrhagic symptoms deserved but little attention, if the patient was well treated with calomel and quinia. When quinia and calomel, singly or with their combinations and adjuvants, have been freely and judiciously employed, and the patient is apparently relieved; when the severer symptoms have abated, the surface assumes a more natural temperature, the pulse soft, less frequent, and natural, and the patient's condition promises well, the case may go on to recovery; but we must remember that this calm often precedes death as well as a restoration to health. This period in the disease always awakened in my mind the most painful anxiety. The question was, had my remedies succeeded in controlling the disease, or had the monster only relaxed its hold merely to regain strength to renew its attack with increased vigor? In this stage the disease, instead of abating permanently, would often remit only for a few hours, and then multiply its horrors by presenting itself in the third or last stage, marked by extreme prostration, cessation of the capillary circulation, retarded or imperceptible impulse of the heart, hemorrhage, the appearance of petechia, clammy skin, black vomit, torpor, and death. Before these most fearful symptoms occurred, whether the case was to result favorably or not, the patient almost invariably expressed himself relieved, and became importunate in his demands to leave his bed and walk about. Another prominent symptom was restlessness, a desire to raise himself and place his head in that part of the bed where his feet ought to be, and a continued shifting of his position. Delirium sometimes supervened; generally, however, confirmed stupor or lethargy was present; but sometimes the mind remained clear to the very last. In every fatal instance I observed that the patient invariably gave utterance to the most mournful sighs, which, to my ears, were peculiar, and belonged only to the death scene of a yellow-fever patient. In that critical period of the disease, when the fate of its victim is vibrating between life and death, it behooves the physician to watch and to labor assiduously and perseveringly by the bedside of his patient. Increased doses of the quinia, with wine or brandy, ale and porter, are imperatively called for, and must be freely used. Should the irritable stomach refuse them, they are to be administered by enemata. As vitality begins to wane, the blistered surface, which should be kept open if possible throughout the treatment, in some cases becomes dry and crusted, and assumes a black or dark brown appearance; and at this period coma usually supervenes, and occasionally we will find that no counterirritant is capable of reviving the old blister or arousing the cutaneous surface into action. In this low stage Assistant Surgeon Vollum, United States Army, informed me that he derived great benefit from the use of nitric acid being freely applied upon the cervical and dorsal spine. By this remedy he believed that he aroused the patient, and also obtained its well-known effects in promoting the biliary secretion. This remedy was suggested to Dr. Vollum by an officer of the line who had suffered from a severe attack of the disease, and attributed his recovery to this acid having been applied through mistake as a *dressing* to a blistered surface. One opportunity only presented itself for me to try the nitric acid, and I derived no advantage whatever from its use. I, however, believe it worthy of attention, and would never hesitate to put it into practise in low comatose condition, which sometimes occurs in the closing scenes of an attack of yellow fever, when the system would not respond to other counterirritants.

When black vomit comes on I have been led, from my own experience, to consider the patient moribund. Cases in my hospital recovered after ejecting from the stomach brown flocculent matter, which precedes black vomit; but none escaped death after the matter ejected became purely black in its color. Cases of recovery after its occurrence are reported, and medical officers of the Army, of the highest professional standing, and whose statement I do not doubt for one moment, have informed me that recoveries have taken place in their own practice; yet I have never seen one. However, we should not relax our efforts even after its appearance.

Yellow-fever patients are peculiarly sensitive to the effects of currents of air, and require the

greatest attention from their medical attendants and nurses in protecting them against such exposure. In the hottest weather a covering of blankets can not only be borne by them, but is essentially necessary to their comfort. Free ventilation of the sick-room is of the utmost importance; but the patient must be most studiously guarded against sudden chills from currents of air. Constant and careful nursing is absolutely required throughout the treatment, and in convalescence the most positive restrictions should be enjoined. Indiscretions in diet or exposure to fatigue, either mentally or physically, are alike injurious. The diet should be the most nutritious and, at the same time, the least offending to a stomach recovering from an inflamed condition. Chicken broth, beef tea, arrow-root, soft-boiled eggs, with ale, porter, wine, or brandy, as is most agreeable to the patient, are the remedial agents during convalescence. Little or no medicine is required.

From the foregoing synopsis of the treatment of yellow fever, it will be perceived that the mild chloride of mercury and sulphate of quinia were the only remedies upon which I relied implicitly. This plan of treatment is, I believe, now generally pursued by the profession, particularly by the medical officers of the Army, and has been fully and ably laid before the profession by Surgeon J. B. Porter, United States Army. In my earliest military service I was associated with this medical officer, from whose long experience and practical knowledge of the disease, I derived many useful hints, and to whom I acknowledge my indebtedness, in a great measure, for the views I now entertain of the nature and treatment of the disease, as set forth in this brief summary.

If I have established the fact that yellow fever was communicated to Governor's Island from the Quarantine, and that the morbific elements were wafted by the winds seven or eight miles, would it not become a question of the most vital importance to determine the extreme distance to which these elements of disease may be disseminated by the wind? It certainly is a question that should engage the studious attention of boards of health, and of those members of the medical profession whose duty it is to to regulate the quarantine enactments and to guard the public health against the pestiferous influences of infected ships that annually arrive in our cities on the sea-board.

Eruptive Fevers are of more frequent occurrence at the stations now under consideration, than at other military posts, owing to their being garrisoned principally by recruits, among whom measles are not uncommon, and who are sometimes attacked with small-pox before time is afforded for vaccination. During the twenty-one years now under review, the number and kind of eruptive fevers reported are as follows: Erysipelas 52, death 1; rubeola 29, death 0; scarlatina 5, death 0; variola 45, deaths 6; varioloides 15, death 0.

Note.—There is no report in the Surgeon General's Office respecting the epidemic yellow fever at Fort Hamilton, New York harbor, in July and August, 1856. The medical officer at that station, Assistant Surgeon Joseph H. Bailey, had to defend his opinions as to the character of that epidemic in the public press. My impression is, that he believed the disease to have been communicated by the winds from infected ships, removed from the usual quarantine anchorage to a position near the Long Island shore, and within a mile or two of Fort Hamilton.

R. H. C.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to Cases.		Ratio of cases per 1,000 of mean strength.
Strength	12,251		12,630		13,632		12,913		12,856				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	3	1	71	28	11	5	85	34	1 in	2.5	.....
Diarrhœa	533	7	913	0	4,084	5	1,086	6	6,616	18	1 in	342	514
Dysenteria acuta	79	3	66	1	595	8	249	4	989	16	1 in	62	77
Dysenteria chronica	5	2	8	1	19	5	18	2	50	10	1 in	5	4
Enteritis	1	0	4	0	4	0	1	0	10	0	0 in	10	0.8
Hepatitis acuta	3	0	3	1	3	0	0	0	9	1	1 in	9	0.7
Hepatitis chronica	0	1	3	0	1	0	3	0	7	1	1 in	7	0.5
Obstipatio	294	0	547	1	837	0	441	0	2,119	1	1 in	2,119	165
All other diseases of this class	415	2	425	0	539	0	284	3	1,663	5	1 in	333	129
Total	1,330	15	1,972	5	6,153	46	2,093	20	11,548	86	1 in	134	899
Total exclusive of cholera									11,463	52	1 in	220	891

In the report of 1856, will be found brief descriptions of the cholera Asiatica that prevailed at Fort Columbus in 1849, 1852, 1853, and 1854. This disease again appeared at that post in the fourth quarter of 1857. It is thus described by Surgeon Charles H. Laub:

"The poison of cholera manifested itself on the 1st of November, 1857, the first case of the disease having been brought into hospital on that day, about 4 o'clock, A. M., from the castle. As there had been no recent importation of cholera from abroad, I can only attribute its development, in these sporadic cases, to the existence of some local cause. My impression, that from localities in which the poison of cholera has been once generated, there will be periodical recurrences of its manifestations whenever the collateral causes exist that are necessary to its development, is strengthened in the present instance by the facts. The castle, which is damp and ill ventilated, has been the point or focus from which, on previous occasions, the disease has emanated, and when the disease appeared this time the sleeping apartments occupied by recruits were over-crowded, sometimes, as a matter of necessity, fifty or sixty men occupying the same room. [Dimensions not reported, R. H. C.] In the first three or four cases the immediate cause was clearly to be traced to great imprudence in diet, among the most prominent of which was eating frequently and in large quantities, raw clams, or rather muscles, found on the shore of the island, while in the later cases, most probably from the increased virulence of the poison, these immediately exciting causes did not appear to be necessary, some being attacked suddenly, while apparently in good health. The purely local influence of the poison is shown in the fact that the troops quartered in other parts of the island were exempt, those only who occupied the castle were brought under its influence. The treatment, modified as each particular case seemed to demand, consisted principally of the mercurial plan in conjunction with stimulants, astringents of various kinds, and anodynes, together with counterirritants. I regret to add that the result, as shown by the mortality, only discovers that the disease, in some of its phases, bids defiance to all the remedial powers of the means yet known and applied for its relief. In the history and progress of these cases there is not the slightest evidence of the contagious character of the disease."

The statistics of cholera Asiatica at Fort Columbus, are as follows:

Years.	Cases.	Deaths.
In 1849	19	15
In 1852	6	4
In 1853	2	0
In 1854	44	9
In 1855	10	5
Total	81	33

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	12,251		12,630		13,632		12,913		12,856			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	154	1	122	1	76	1	58	1	410	4	1 in 102	32
Catarrhus	2,136	0	1,333	0	1,022	0	1,512	1	6,003	1	1 in 6,003	467
Phthisis pulmonalis	12	10	18	8	32	11	11	11	73	40	1 in 1.8	5.6
Pleuritis	49	2	24	1	17	0	15	0	105	3	1 in 35	8
Pneumonia	71	7	40	7	10	1	27	3	148	18	1 in 8	11
All other diseases of this class	14	0	16	2	22	2	21	0	73	4	1 in 18	5.6
Total	2,436	20	1,553	19	1,179	15	1,644	16	6,812	70	1 in 97	529
Rheumatismus	292	1	378	0	361	0	347	0	1,378	1	1 in 1,378	107

NORTH INTERIOR REGION—EAST OF THE GREAT LAKES.

This region embraces that portion of the northern division situated between the Great Lakes and the Atlantic ocean, and so far removed from either as not to be influenced by those large bodies of water. The only station in this region that has been occupied by troops since January, 1855, is West Point; but for the sake of giving greater completeness to this report, the statistics of Fort Kent, Fort Fairfield, Hancock Barracks, Plattsburg Barracks, and Watervliet Arsenal, will be copied from the report of 1856, with exception of the "abstracts," for the details of which, as well as for reports on the medical topography and diseases of these posts, reference is made to that report.

DISEASES.

The command at West Point, until within a few years past, consisted principally of cadets, students in the Military Academy, "who, when suffering from headache or slight indisposition, can only obtain respite from academical studies or military exercises by having their names registered on the sick report." During the last five years the number of enlisted soldiers, engineers, ordnance, artillery, and dragoons, with musicians, has nearly equaled that of the cadets. Abstract No. 3, for this division, exhibits the principal diseases and deaths occurring

at West Point for twenty-one years, from January, 1839, to January, 1860; and the following table exhibits the ratio of sickness and mortality for the same period:

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio to mean strength.	
				Treated.	Died.
First quarter	9,615	10,489	8	1,090	0.8
Second quarter	8,848	10,151	11	1,149	1.2
Third quarter	9,411	11,856	15	1,259	1.6
Fourth quarter	9,725	10,932	6	1,124	0.6
Annual ratio	9,400	43,428	40	4.620	4.3
Exclusive of cholera		43,423	37	4,619+	3.9

This table shows that the annual proportion of cases treated to the mean strength has averaged 4.62 to 1; that the ratio of deaths to the number of men was 1 in 235, or 0.4 of 1 per cent.; and that the proportion of deaths to the number of cases treated was 1 in 1,085, or 0.9 of 1 per cent.

Exclusive of deaths from cholera, the mortality was 1 in 254, or 0.39 per cent.

From 1829 to 1838 the sickness at this post averaged 4.5 to 1, and the mortality 0.3 of 1 per cent.; from 1839 to 1855 the sickness averaged 4.5 to 1, and the mortality 0.4 of 1 per cent.; from 1839 to 1860, twenty-one years, these averages were, respectively, 4.6 to 1, and 0.4 of 1 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio per cent. per 1,000 of mean strength.
Strength	9,615		8,848		9,411		9,725		9,400			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	71	0	90	0	111	0	95	1	367	1	1 in 367	39
Febris intermittens quotidiana	10	0	12	0	44	0	9	0	75	0	0 in 75	8
Febris intermittens tertiana	59	0	218	0	325	0	129	0	731	0	0 in 731	78
Febris intermittens quartana	0	0	1	0	1	0	7	0	9	0	0 in 9	1
Febris remittens	1	0	8	1	15	0	4	0	28	1	1 in 28	3
Febris typhus et typhoides	2	1	5	0	1	0	2	0	10	1	1 in 10	1
Febris typhus atactodes	0	0	0	0	1	0	0	0	1	0	0 in 1	0.1
Total	143	1	334	1	498	0	246	1	1,221	3	1 in 407	130

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	9,615		8,848		9,411		9,725		9,400				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	0	0	5	3	0	0	5	3	3 in	5	0
Diarrhœa	585	0	599	0	1,930	1	815	0	3,929	1	1 in	3,929	418
Dysenteria acuta	21	0	19	0	154	4	13	0	207	4	1 in	52	22
Dysenteria chronica	4	0	1	0	0	0	0	0	5	0	0 in	5	0
Enteritis	1	0	1	0	0	0	0	0	2	0	0 in	2	0
Hepatitis acuta	1	0	0	0	0	0	0	0	1	0	0 in	1	0
Hepatitis chronica	0	0	0	0	1	0	2	0	3	0	0 in	3	0
Obstipatio	221	0	217	0	271	0	206	0	945	0	0 in	945	100
All other diseases of this class	927	0	856	1	1,010	0	897	0	3,690	1	1 in	3,690	392
Total	1,760	0	1,714	1	3,371	8	1,942	0	8,787	9	1 in	976	935
Exclusive of cholera									8,782	6	1 in	1,464	934

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	9,615		8,848		9,411		9,725		9,400				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	0	0	0	0	1	0	2	0	3	0	0 in		0
Catarrhus	2,996	0	2,035	0	1,191	0	2,711	0	8,933	0	0 in	8,933	950
Phthisis pulmonalis	4	4	4	5	4	3	2	2	14	14	1 in	1	1.5
Pleuritis	30	0	17	0	6	0	37	0	90	0	0 in	90	9
Pneumonia	6	1	4	0	1	0	2	0	13	1	1 in	13	1.4
All other diseases of this class	47	0	69	0	70	0	48	1	234	1	1 in	234	25
Total	3,083	5	2,129	5	1,273	3	2,802	3	9,287	16	1 in	580	988
Rheumatismus	274	0	289	1	273	0	243	0	1,079	1	1 in	1,079	115

For brief remarks respecting the diseases at West Point, reference is made to the report of 1856. During the last five years the sick reports from that station are without remarks of interest, except the following by Surgeon S. P. Moore:

"It will be perceived from the report of sick and wounded that epidemic catarrh has prevailed at this post during the past quarter, (fourth quarter of 1858.)

"It might be said that two epidemics have prevailed, the first occurring in the early part of October, and the second in the middle of December; the accession and disappearance, in both instances being very general and sudden, no cases occurring in the interval between the two attacks, say in the month of November.

"The corps of cadets was principally affected in both instances. All the cases in the first attack, that is, in October, presented the following symptoms, viz: the patient was chilly or

had a chill, presently fever followed, fullness about the forehead, in the situation of the frontal sinuses, &c.; in other words, presenting all the symptoms of epidemic catarrh. These symptoms were accompanied by an unusual degree of heat and uneasiness about the throat and the larynx, the stress of the disease falling upon the fauces, tonsils, and adjacent parts. An examination of the throat showed an extensive erysipelatous condition of the mucous membrane. This condition was so marked in many cases as to be apparently the primary disease; in three cases cynanche trachealis was fully developed.

"The disease in December exhibited the usual symptoms of epidemic catarrh, the stress of the disease falling, as it generally does, upon the internal lining of the air passages.

"In both forms of the disease the symptoms abated in from two to four days, the patient rapidly convalescing.

"The ordinary treatment was adopted; for the throat affection the application of the nitrate of silver in solution (thirty grains to the ounce) was used with marked benefit.

"The occurrence of epidemic catarrh may be connected with some particular state or condition of the atmosphere, and, possibly, some such contamination may have been the cause of the recent outbreak of disease. The weather has been favorable to the production of disease of the air passages; that is, the temperature has been very variable, sudden changes from cold to warm; but as every epidemic has not been preceded by similar changes, it cannot, perhaps, be traced to these atmospheric changes as a cause.

"The inhabitants of the neighboring country have suffered much from the prevalence of the disease in October, many cases proving fatal. It was named by them 'the black tongue,' and 'malignant sore throat,' possibly because the throat was chiefly implicated.

"The opinion is, that the two diseases were one and the same epidemic, with the force of the first on the upper portion of the air passages, the second being more general in its effects."

The tables that immediately follow represent the sickness and mortality at posts in the north interior region, east of the Great Lakes, from 1839 to 1854, with exception of West Point, since which time none of them have been permanently garrisoned. The tables are copied from the report of 1856.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	3,731	1,541	13	413	3.4
Second quarter	3,706	1,624	17	438	4.5
Third quarter	3,473	1,852	3	533	0.8
Fourth quarter	3,304	1,409	6	426	1.8+
Annual ratio	3,553	6,426	39	1,808	10.9

The foregoing table shows that the average annual proportion of cases of disease to the strength of the command was 1.8 to 1; the ratio of deaths to the number of men, 1 in 91, or 1.09 per cent.; and the proportion of deaths to cases treated, 1 in 164.77, or 0.6 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	3,731		3,706		3,473		3,304		3,553			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	27	0	43	0	41	0	40	0	151	0	0 in 151	42
Febris intermittens quotidiana	7	0	30	0	28	0	16	0	81	0	0 in 81	22
Febris intermittens tertiana	13	0	27	0	58	0	15	0	113	0	0 in 113	32
Febris intermittens quartana	0	0	6	0	3	0	7	0	16	0	0 in 16	4
Febris remittens	6	0	10	0	4	0	0	0	20	0	0 in 20	6
Febris typhus	0	0	0	2	0	0	3	1	3	3	3 in 3	1
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Total	53	0	116	2	134	0	81	1	384	3	1 in 128	108

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	3,731		3,706		3,473		3,304		3,553			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Diarrhœa	62	2	119	0	295	0	121	0	597	2	1 in 298	168
Dysenteria acuta	15	0	25	0	69	0	6	0	115	0	0 in 115	32
Dysenteria chronica	1	0	2	0	0	0	2	0	5	0	0 in 5	1
Enteritis	0	0	14	0	8	0	0	0	22	0	0 in 22	6
Hepatitis acuta	0	0	1	0	4	0	2	0	7	0	0 in 7	2
Hepatitis chronica	0	0	2	0	2	0	4	1	8	1	1 in 8	2
Obstipatio	48	0	53	0	64	0	43	0	208	0	0 in 208	58
All other diseases of this system	112	0	114	0	180	0	102	0	508	0	0 in 508	143
Total	238	2	330	0	622	0	280	1	1,470	3	1 in 490	413

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	3,731		3,706		3,473		3,304		3,553			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	20	0	14	0	15	0	15	1	64	1	1 in 64	12
Catarrhus	404	0	321	1	256	1	294	0	1,275	2	1 in 637	358
Phthisis pulmonalis	7	3	2	4	4	1	4	2	17	10	1 in 1.7	4.7
Pleuritis	42	1	25	0	22	0	32	0	121	1	1 in 121	34
Pneumonia	35	0	27	2	18	0	16	0	96	2	1 in 48	27
All other diseases of this system	1	0	6	0	5	0	1	0	13	0	0 in 13	4
Total	509	4	395	7	320	2	362	3	1,586	16	1 in 99	446
Rheumatismus	51	0	92	1	69	0	58	0	270	1	1 in 270	76

REGION OF THE GREAT LAKES.

During the five years under special review only four stations in this region have been occupied, viz: Forts Brady, Mackinac, Ontario, and Detroit Arsenal. The report of 1856 should be consulted for the medical topography and diseases of those posts, and of Madison Barracks, Fort Niagara, Buffalo Barracks, Detroit Barracks, Forts Gratiot, Wilkins, and Howard, also situated in this region, and the statistics of which are included in Abstract No. 4, and in the following tables.

DISEASES.

The subjoined table, compiled from Abstract No. 4, for this division gives a condensed view of the amount of sickness and mortality among the troops in the region of the Great Lakes during a period of twenty-one years from January, 1839, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength	
				Treated.	Died.
First quarter	11,464	5,254	44	458	3.8
Second quarter	11,499	6,681	34	581	2.9
Third quarter	10,089	6,326	33	627	3.2
Fourth quarter	10,029	5,266	37	525	3.6
Annual ratio	10,770	23,527	148	2.184	13.7
Exclusive of cholera		23,514	142	2,183	13.1

It will be perceived that the proportion of cases of sickness to the number of men is 2.18 to 1; that the ratio of deaths to the strength of the command is 1 in 73, or 1.37 per cent.; and that the proportion of deaths to cases treated is 1 in 159, or 0.63 of 1 per cent. Exclusive of cholera, the ratio of deaths to the number of officers and men was 1 in 76, or 1.31 per cent., per annum; and the proportion of deaths to cases treated was 1 in 165, or 0.60 per cent.

FEVERS.

Quarters.	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	11,464		11,499		10,089		10,029		10,770				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris continua communis	45	1	86	1	49	1	59	0	239	3	1 in	79	22
Febris remittens quotidiana	70	0	408	3	473	0	172	0	1,123	3	1 in	374	104
Febris intermittens tertiana	190	0	548	0	410	0	347	0	1,495	0	0 in	1,495	138
Febris intermittens quartana	15	0	26	0	28	0	16	0	85	0	0 in	85	8
Febris remittens	36	2	76	0	292	8	123	4	527	14	1 in	37	49
Febris typhus	9	0	5	1	13	0	7	1	34	2	1 in	17	3
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Total	365	3	1,149	5	1,265	9	724	5	3,503	22	1 in	159	325

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.			
Strength	10,999		11,499		10,089		10,029		10,770			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Proportional to cases.	Ratio of deaths per 1,000 of mean strength.
Cholera Asiatica	0	0	1	1	12	5	0	0	13	6	1 in 2	.....
Diarrhœa	319	4	609	3	1,044	0	580	6	2,552	13	1 in 196	237
Dysenteria acuta	30	0	46	1	126	2	84	0	286	3	1 in 95	26
Dysenteria chronica	7	0	4	1	5	0	8	0	24	1	1 in 24	2.2
Enteritis	15	1	7	0	6	0	3	1	31	2	1 in 15	2.9
Hepatitis acuta	1	1	4	0	7	0	0	0	12	1	1 in 12	1
Hepatitis chronica	5	0	6	0	1	0	3	0	15	0	0 in 15	1.3
Obstipatio	95	0	150	0	155	0	110	0	510	0	0 in 510	47
All other diseases of this class	261	1	325	1	322	1	311	4	1,219	7	1 in 174	113
Total	733	7	1,152	7	1,678	8	1,099	11	4,662	33	1 in 141	433
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	4,649	27	1 in 172	431

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.			
Strength	11,464		11,499		10,089		10,029		10,770			
Diseases.	Cases.	Deaths	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Proportional ratio to cases.	Ratio of deaths per 1,000 of mean strength.
Bronchitis acuta et chronica	40	1	54	0	24	0	36	0	154	1	1 in 154	14
Catarrhus	1,031	0	1,091	1	687	0	839	0	3,648	1	1 in 3,648	342
Phthisis pulmonalis	14	12	11	8	13	7	11	7	49	34	1 in 1.44	4.5
Pleuritis	83	1	83	0	42	0	56	1	264	2	1 in 132	24.5
Pneumonia	92	4	37	4	21	0	40	1	190	9	1 in 21	17.6
All other diseases of this class	16	1	22	1	10	1	16	1	64	4	1 in 16	6
Total	1,276	19	1,298	14	797	8	998	10	4,369	51	1 in 85	406
Rheumatismus	307	0	339	1	261	0	278	0	1,185	1	1 in 1,185	110

The reports of sick from this region during the last five years are without noteworthy remarks. For brief statements respecting eruptive fevers, cholera, and influenza, see the report of 1856.

NORTH INTERIOR REGION—WEST OF THE GREAT LAKES.

This region includes all that portion of the United States which lies between the Great Lakes and the Rocky Mountains, and north of the fortieth degree of latitude. During the period under special review, twelve stations have been occupied in this region, viz: Forts Crawford, Snelling, Ridgely, Ripley, Abercrombie, Pierre, Randall, Kearny, Lookout, and Camps Platte Bridge and

Wallbach. During a portion of the period covered by the general statistics, three other posts were garrisoned, viz: Forts Winnebago, Atkinson, and Dodge.

In the report of 1856 will be found reports on the medical topography and diseases of Forts Winnebago, Crawford, Snelling, Atkinson, Dodge, Ripley, Ridgely, Kearny, and Laramie.

SANITARY REPORT—FORT ABERCROMBIE.

Assistant Surgeon A. A. Wall: December, 1858.

Fort Abercrombie is situated on the west bank of the Red River of the North, about twelve miles below the confluence of the Bois des Sioux and Ottertail rivers. It is also about two hundred miles northwest of Fort Ridgely, Minnesota. By approximation, it is in or near latitude 46° N., and longitude 97° W., being in about the same latitude as Fort Ripley. Its true position has not been, as yet, scientifically determined; I have no *data* in my possession by which to approximate its altitude above the sea.

The quarters at present occupied by the troops, which are merely temporary, are situated in the woods in a bend of the river. They were thus placed in order to shelter the command from the rigors of the approaching winter. The permanent quarters are to be built upon the adjoining prairie, several hundred yards distant, which is much higher.

The present quarters of the officers and men are rude log huts with dirt roofs; and although presenting a rather forbidding aspect externally, are quite comfortable within. The greatest objection to them is that they do not seem to admit of sufficient ventilation. Thus far, however, I have not observed any injurious results arising apparently from this cause.

The prairie upon which the permanent buildings are to be erected is elevated about thirty feet above the surface of the river at low water. This prairie is included between the Red and Wild Rice rivers, which run parallel to each other for some thirty or forty miles in a northerly direction. The surface of the prairie is level or gently undulating, and averages four or five miles in width. The country on the east or Minnesota side of Red river is a flat prairie, its surface being quite level for many miles in every direction. The prairie beyond the Wild Rice river (four miles distant) is rolling, and becomes more broken towards the west, until it finally becomes merged into the "sand hills."

Although this country is preëminently *lacustrine* in its nature, still there are no lakes or marshes in our immediate vicinity; even if there were, however, I do not think that they would constitute a source of miasmatic vapors, as in all probability the warm weather in this high northern latitude is of too short duration to admit of such a result.

My residence here has been of too limited duration to allow me to advance a reliable opinion with regard to the general sanitary condition of the spot; but so far as my experience extends, I am of opinion that no miasmatic or other endemic disease exists in our neighborhood. The single case of miasmatic disease observable on the "sick report" was contracted elsewhere. Since their arrival here the troops have been constantly employed, without regard to the inclemencies of the weather, in the fatigues and hardships incident to the building of a new post. Consequently the complaints with which they have been most troubled have been those arising from exposure, such as catarrh and rheumatism.

These cases, however, were very mild in character, and yielded readily to ordinary remedies. As might be expected, under the circumstances, a number of wounds and injuries have occurred, though none of them have proved fatal. A number of cases of diarrhœa are noticeable on the report. These may have been produced by drinking the river water, which is somewhat *hard*, or, what I think more probable, by villainous liquor, which those pests of all military posts, the clandestine liquor-sellers, have been freely vending to the troops.

The only death that has as yet occurred in the command, was that of a soldier who was frozen to death in attempting to return to the post from a place where liquor was sold, whilst in a state of intoxication. The climate here is, in general, rigorous, but subject to sudden and

extraordinary thermal changes, a difference of thirty or forty degrees of temperature being sometimes witnessed in the course of as many hours. These climatic vicissitudes, fortunately, do not seem to impair the health of the men. But little snow has fallen since the cold weather set in—in all not more than six or eight inches.

It is said that much less snow falls here on an average than at points in more southern latitudes. This is probably attributable to the dryness of the air in this section of country; the absence of moisture in the air itself being doubtless owing to a low temperature and great height above the sea level.

The first frost, I am told, occurred about the middle of August, a few days after the arrival of the first detachment of troops. The first snow fell on the 17th October. The river froze over on the 8th of November, and has remained closed ever since. The ice, at present, is from a foot to eighteen inches thick.

Some doubt and anxiety exist in the command as to the liability of the post to an overflow. We have been informed by old *voyageurs* that our present quarters, and even the ground upon which the permanent buildings are to be constructed, are alike subject to this important objection. The presence of *débris* high up in the limbs of the trees, and of drift-wood high and dry upon the surrounding prairies would seem strongly to confirm their statements. Their explanation of this matter, which is quite rational, is as follows: Forasmuch as the Red river flows towards the north, the ice and snow at its sources are first melted, and the water is forced to flow through the channel of a river already much diminished from being frozen over, so that in cases of sudden and great thaws the overflow of its banks is rendered exceedingly probable. It is said that such an occurrence does not happen oftener than once in ten or twelve years; but the bare probability of such an event detracts greatly from its eligibility as a military post, as such an accident would, in all probability, be attended by very serious consequences, as there is no high land near us to which we could retreat.

As this post has been but recently established, a slight description of the country, &c., may, perhaps, be acceptable to the department. I shall, therefore, proceed to give a brief account, hoping that my remarks (which will not be strictly within the province of a sanitary report) may prove somewhat interesting if not instructive.

The Red River of the North is formed by the confluence of the Bois des Sioux and Ottertail rivers. The origin of the former is in Lake Travers, near Big Stone lake; this last-mentioned lake being the source of the Minnesota or St. Peter's river. The origin of the latter is commonly assigned to Ottertail lake, though I am told that its true source is in Elbow lake, near Itasca lake, the source of the Mississippi; these two lakes being separated merely by a narrow strip of elevated land called Hauteurs des Terres. It is thus observable that the ultimate sources of rivers flowing on the one hand to the distant "Sunny South," and on the other to the glacial regions of the North, have almost a community of origin. Furthermore, I am informed that, although at ordinary stages of the water a portage of about two miles has to be made between Lake Travers and Big Stone lake, yet it occasionally happens that at high water boats can freely pass from one lake to the other. If such be the case, we are made acquainted with one of the most remarkable and interesting facts appertaining to the physical history of our continent, which is the feasibility of traveling by water from Hudson's Bay to the Gulf of Mexico by an inland passage.

The general course of the Red river is towards the north. One of the most remarkable peculiarities of the river is its surprising tortuosity. A person may walk for miles upon its frozen surface, and upon ascending the bank is surprised to find that he is very close to the point from which he started. It is said to be not more than 160 miles from this post to Pembina by the land route, whereas by way of the river the distance is estimated at more than 400 miles. There are no falls or rapids in the river that I have seen; the river moving along with a steady and tolerably rapid current. The term *red*, as applied to this river, is singularly inappropriate,

inasmuch as the *bluish-black* soil through which the stream flows imparts its color to the water. Opposite the post it is not more than thirty yards in width and from two to three feet in depth at low water, and these general dimensions it preserves for many miles, both above and below the post. As regards its navigability, I think that any other than the smallest single steamers will have great difficulty in ascending as high as the post, except at periods of high water. As is usually the case with water courses in this country, the banks of Red river are overgrown with trees, the principal varieties being the oak, ash, maple, elm, and boxwood. The timber in general is large, some of the trees attaining a stately magnitude, a circumstance indicative of the richness of the soil from which they spring. As might be inferred from its alluvial character, no pines grow in the Red River valley. The nearest are at Ottertail lake, forty-five miles east of the post in a direct line.

The valley of the Red river is a flat alluvial prairie with a subsoil of bluish-black clay. There are no rocks in our vicinity, save those mysterious *boulders*, which, scattered here and there over the face of the country, form so interesting a feature in the geological history of our country. This valley is both fertile and beautiful; at the proper seasons of the year it is covered with a most luxuriant growth of excellent grass. I am told that at Pembina most of the cereals and esculent roots are successfully cultivated, though, in general, the seasons are too short to justify the extensive cultivation of corn. The greatest drawbacks that the farmers experience are the occurrence of early frosts and the devastations committed by grasshoppers. I am told that these insects are, at times, so numerous and destructive as to utterly lay waste every green shrub or plant in their route, not even excepting the leaves of the tallest trees. It is probable that localities combining the advantages of wood and water will soon become settled; but I am of opinion that the extreme rigor of the climate, coupled with the comparative scarcity of wood and the remoteness of a market, will, for a long time, debar the ingress of a large population into this valley. In all probability these prairies will only become densely populated when railroads are made throughout the country; when the agriculturist, in exchange for the products of his farm, will be able to procure a sufficiency of coal for fuel.

From time immemorial the regions of country watered by the Red river and its tributaries have been celebrated for the abundance of its game, and its animals prized for their furs. In former times the Hudson's Bay Company drew from this region many of their most valuable peltries. The buffalo, elk, and antelope are still abundant upon the prairies, and the beaver, otter, fisher, mink, and muskrat, in the streams. At present, these regions constitute the hunting and battle-grounds of the Sioux and Chippewa tribes of Indians. Wild fowls are also numerous, being attracted, in a great measure, by the wild rice which here flourishes luxuriantly. Among these I have noticed the American swan, (*Cygnus americanus*,) and varieties of geese, viz: *Anas canadensis; A. hyperborea; A. bernicla.* As to the ducks, among many others of less note, I have observed the mallard and blue-winged teal, (*Anas boschas*, and *A. discors.*) Three of the most prized species of duck found on the Atlantic sea-board I have never seen here, viz: The canvasback, red-head, and American widgeon or bald-pate, (*A. valisneriana, A. ferina, A. americana.*)

As regards the fish, they are quite abundant in the river. Among them I have been able to identify the great northern pickerel, (*Esox lucivides.*) I was told that the white fish (*Coregonus albus*) was an inhabitant of the river, but a specimen exhibited to me as such was a species of fresh-water herring, (*C. artedi.*) I have not, as yet, seen the American pike (*Esox estor*) here, though both the pike (or muskellunge as it is commonly called) and the white fish may be natives of the river, inasmuch as I have not yet had time to make the proper investigation. The bird called the grouse here is not a true grouse, (*Tetrao,*) but a species of ptarmigan, (*Lagopus;*) they are very abundant and of excellent flavor.

SANITARY REPORT—CANTONMENTS OF SIXTH INFANTRY, NEAR FORT PIERRE, N. T.

Assistant Surgeon Aquila T. Ridgely: July, 1856

This cantonment is situated immediately upon the left bank of the Missouri river, twelve miles above Fort Pierre, Nebraska Territory. It is located in a beautiful cottonwood grove, from three to five hundred yards in breadth and five miles in length. The undergrowth was originally very dense, but has now been so thinned out as to permit a free and unobstructed circulation of air. The trees remaining are very large and tall, and afford most excellent shade to the cantonment. The houses are based upon a soil which is elevated about twelve feet above the ordinary stage of low water in the river. The ground bears evidences of having been subject to an occasional overflow, but I think that a long time has elapsed since this has occurred, and deem it very probable that it will never happen again. The soil is very sandy in its character, and consists of the deposits from the river when high, of sand blown from the bars when the water is low, and of some vegetable mould, which has been here formed. Immediately without the timber (which extends along the river bank) is a bench of land about six hundred yards in breadth, and raised six or eight feet above the site of the cantonment, covered chiefly with the short buffalo grass. Upon the outward side of this bench is a low range of bluffs, which rise abruptly to the height of about sixty feet above the plain below, and then form a very gently undulating plateau, which gradually slopes upwards to the main bluffs, about three miles from the river. The first range of bluffs approaches to the water's edge about two miles above us, whilst below us the bench of land between the bluffs and the timber widens, becomes lower and more moist, and is covered with longer grass. There are no ponds in our vicinity. During a continuance of rains, early in the month of May, a considerable portion of the valley from three to four miles below us was covered with water to the depth of a few inches; but this has not since been the case. The Missouri river is about three fourths of a mile in breadth at this place. Upon the opposite bank there is no river valley from a point seven miles below this to one several miles above.

The climate of this region is cold in winter and hot in summer. The mercury ranges during the year from —27° to 106° Fahrenheit, and, perhaps, in some instances the extremes are still more widely separated. During the recent hot weather the temperature has been suddenly considerably reduced upon a few occasions; but I have only observed one or two cases of disease which appeared to be induced thereby.

Whilst the cold season continued the troops were much exposed in procuring fuel for the fires, cottonwood bark for the mules to eat, &c. The mules were not permitted to be used at all for the transportation of these supplies, and the men were compelled to attach themselves to the wagons. Since the opening of spring these duties have almost ceased to be required, and a moderate amount of drilling, with a light guard duty, have composed the chief employment of our soldiers.

The officers' quarters, the soldiers' quarters, and the hospital, are similar structures. They are built of cottonwood logs, filled in and roofed with earth. As the buildings were erected long after the ground had become frozen in the autumn, they could be but imperfectly constructed; they were consequently cold in winter. Upon the occurrence of the spring rains we found that the roofs were no protection against the water. It became necessary for the hospital department, for the companies, and for the officers, to pitch tents adjacent to the buildings, in which to take refuge upon the approach of a storm. Window-glass was allowed to the hospital, although at first refused by General Harney; none was permitted to the officers or companies. The rooms were attempted to be heated by large open fire-places; so unsuccessful was the effort, however, that it was sometimes impossible to write, in consequence of the freezing of the ink in the pen. The houses are tolerably cool in summer, but because of the arrival of camp-women, recruits, and detachments, a large portion of the command is now in tents. From past experience, I

should apprehend the prevalence of dysentery and diarrhœa among those in tents, were it not that they are so very much protected from the heat by the shade of the trees.

The diet has consisted mainly of the regulation ration. During the early portion of the quarter the men partook largely of the bulb of the wild artichoke, and of the tops of various esculent herbs that are here found.

I believe that we are indebted to the use of the artichoke for the disappearance of scorbutus in the command. As soon as we commenced using it new cases of scurvy ceased to show themselves, and those already sick began to get well. Towards the end of May the men were furnished with a small supply of potatoes, but the necessity for them had almost ceased. The artichoke had preceded it, and appeared to have accomplished the work as effectually and as speedily. The new cases of scurvy which have originated during this quarter did not arise here. They occurred in the persons of recruits who were sick with the disease when landed from the steamboat. The water in use by the command seems to be good and wholesome. Until recently we have been using the water of the Missouri, which, I believe, bears a very fair reputation, especially in the West. Since the prevalence of the very hot weather wells have been made near the river. The water is much cooler than the river water, and is grateful to the taste, yet, it evidently contains some foreign element which is not perceptible in the latter. Whatever may be the nature of this foreign principle, no evidences of its insalubrity have yet manifested themselves.

With regard to cleanliness and clothing the men have been about upon a par with soldiers with whom I have usually served. With respect to their clothing they have been somewhat more fortunate than their companions most frequently are. In consequence of there not being a supply of uniform caps on hand they have been permitted to consult comfort and convenience in the covering of their heads, and have been enabled to protect themselves to this extent against the frost of winter and the burning rays of the sun of summer.

During the present quarter the command has been remarkably temperate, if not in all things, at least in the use of intoxicating drinks. In fact, there has been almost total abstinence prevailing in this respect. It would afford me great pleasure to suppose that this abstemiousness was dependent upon moral considerations. I fear, however, that it was chiefly owing to the difficulty of obtaining the means of intoxication.

Upon the whole, the command has enjoyed excellent health during the quarter. I do not see anything in our locality calculated to bring disease upon persons circumstanced as we are. Were we more exposed to the sun I should apprehend a somewhat larger sick report. I should not anticipate the development of malaria in this neighborhood. Of the eight men who have suffered from fevers during the quarter, seven arrived from the Lower Missouri on the sixth of June. At the end of the first quarter of 1856 there were thirty-eight men on the sick report; at the end of the second quarter, with a command more than fifty per cent. larger, there remain but fourteen men sick, and more than half of these are from among those who have recently arrived. Should the battalion be permitted to remain where it is, I think that there will be a small sick list until the approach of winter.

SANITARY REPORT—FORT LOOKOUT.

Assistant Surgeon David L. Magruder: October, 1856.

Fort Lookout, Nebraska Territory, latitude 44° N., longitude 99° W., (?) now in course of construction, is situated on the right bank of the Missouri river, upon the lower extremity of a low plain, six miles in length and two wide, with an average level near the post, of perhaps twenty-five feet above high water. Immediately in the rear of this plain, to the southwest and northwest, abruptly rises the high prairie, extending as far as the Black hills, the average elevation of which is nearly two hundred feet.

The site of the garrison is quite a salubrious one, there being no dense forests, high grass, or marsh lands in its proximity, to give rise to unhealthy miasms. It is true that upon an island directly in front of the post, there are, at low water, several small lakes, but as they never become isolated until late in the season, near the setting in of frosts, I apprehend no danger from them. The soil of the garrison plain is a dark clay, strongly impregnated with iron and salts of magnesia and soda. A thin substratum of brown hematite ore is observed to underlie it, at about six feet from the surface, and directly beneath it again are horizontal strata of a soft friable cretacious limestone, which appears to be of no particular value, either for building purposes or making lime.

The only forest trees in the vicinity, and they not at all abundant, are the cottonwood, a species of elm, the ash, and box-elder, all of which are confined exclusively to the river bottom and the ravines making up into the plain from it.

The shrubbery in the same localities affords rather a greater variety. The most useful are the wild plum, a dwarfed wild cherry, the buffalo berry, two varieties of currant, the gooseberry, and grape. None of them, however, bore fruit during the past summer, except the last, but an abundant yield is expected the coming season.

The climate thus far, since my arrival, has been remarkably dry, even for the country west of the ninety-ninth parallel; and although, at times, quite variable in temperature, not colder than to be expected at this particular season in so high a latitude.

From the beginning of August to about the first of September, the whole available force of the command was engaged in transporting and putting under cover the quartermaster's and commissary's stores which had been deposited from steamboats upon the river bank, in two different places, five miles distant. Since the time last specified, the collecting of building materials and the erection of quarters have been the chief employment of the troops. Should the weather continue favorable for out-door work, the rank and file of the command will doubtless be under cover by the middle, or at furthest, by the last of the present month, and the officers will be able to move into quarters early in the next.

The quarters under construction for the men are to be of logs, hewn on all four sides, and strongly framed together, and when completed, will be one story high, well ventilated and lighted; will afford ample room for the occupants, and, on the whole, present quite a neat and comfortable appearance. For the winter, they will be heated by stoves. It is not yet decided of what material the officers' quarters will be constructed.

The diet of the troops consist of the ordinary soldiers' rations, with an occasional extra issue of molasses and dried fruit superadded, as preventive of scorbutus. No fresh vegetables having been grown here this year, I have represented to the commanding officer the urgent necessity for sending to the settlements as early as possible for potatoes, or other fresh vegetables, for use during the coming winter. I believe it is his present intention to dispatch a train for the purpose early this month. Should it, however, have happened, by any accident, that no fresh vegetables be brought up this fall, I apprehend that it will be again my misfortune to witness another scorbutic epidemic before the return of vegetation in the spring.

The men of this command are remarkably neat in personal appearance, and cleanly in their habits, and for sobriety I have never seen them excelled by any set of men; in fact, I have yet to see a drunken man at Fort Lookout.

During August and September no cases of disease have occurred which presented unusual or decidedly severe symptoms.

SANITARY REPORT—FORT RANDALL.

Surgeon T. C. Madison: September, 1857.

Fort Randall is situated on the right bank of the Missouri river, and in the Territory of Nebraska; latitude 43° 01′ N., longitude 98° 12′ W., altitude above the sea 1,245 feet,

and above the river about 50 feet. The post is 146 miles above Sioux City, Iowa, by odometer measurement, on the Minnesota side, and 40 miles above L'eau qui Court, or Running Water. The country in the immediate vicinity is very hilly; but, after you ascend these eminences or bluffs two miles to the southwest, presents an expansive level prairie. From the summit of any of these hills you have a most picturesque view of the surrounding country, the Missouri river and Minnesota Territory. The plateau on which the post is built is about one fourth of a mile from the river, the width of which at this point is about the same distance. There is no other water in the vicinity, if you except a creek, which enters the Missouri river, a few hundred yards south, and which, from the fact that it is dry three fourths of the year, has been denominated the Dry Ravine. The river bottom is not extensive, and the only timber to be found is along it and the Dry Ravine, (which latter extends about fifteen miles,) and is suitable for fuel only. The logs from which our first quarters were constructed were rafted across from the Minnesota side of the river. After the abandonment of Forts Pierre and Lookout, much better quarters were constructed from the lumber brought from those posts. There are several cedar islands from fifteen to thirty miles above, from which the best lumber can be procured, and either floated down in summer or hauled down upon the ice in winter. The soil is chiefly silicious, and productive only in small localities. Our gardens would have succeeded better, but for the inadequate supply of rain, and the myriads of grasshoppers, which made their appearance about the 1st of August, continued throughout the month, and almost annihilated everything possessing verdure. There is a sulphur spring on the opposite bank of the river.

Forest Trees.—Cottonwood, elm, (two varieties,) ash, scrub oak, box-elder, cedar, hickory.

Fruits.—Plums, (yellow and red,) buffalo and service berries, choke cherries, wild raspberries, wild gooseberries, and winter grapes.

Plants.—Polar or magnetic plant, (Indian guide,) sunflower, wild artichoke, wild onion, and and a great variety of others entirely unknown to me, but perhaps not to botanists. The wild rose is most abundant, and a weed, called rattlesnake weed, the root of which is said to be a specific in the cure of the bite of that snake. The root is chewed and applied directly to the part; it is hot, pungent, penetrating. I had a quantity gathered and preserved in the hospital, but no opportunity occurred for testing its reputed properties.

Mammals.—Buffalo, elk, black and white tail deer, wolves, prairie dog, fox, squirrel, (red,) beaver, mink, otter, badger, and prairie ground squirrel. Buffalo, elk, and deer are not abundant, though three of the first were recently killed in Minnesota within five miles of us. There is an extensive dog-town within two miles of the post.

Birds.—Wild turkey, Washington, bald, and war eagle, owl, (large and screech,) raven, crow, grouse, quail, blackbird, bluebird, swallow, hawk, (large and small,) sparrow, killdeer. The grouse are quite numerous, but it is very rare to see a quail; some few were reported a few miles above here, and a bevy was frequently seen on Ponca islands, twenty-five miles below. None have ever been discovered as high up the river as Lookout or Pierre. There are also wild pigeons, doves, ducks, larks, robins, woodpeckers, and whippoorwills.

Fishes.—Buffalo and cat; some of enormous size abound in the Missouri; it is very rare to catch any other kind.

Reptiles.—Rattle-snake, buffalo-snake, garter-snake, toad.

Meteorology.—The climate is uniformly cold in winter, and not unpleasantly hot in summer. The lowest thermometrical observation was —26°, on 17th of January, at 9, P. M., and the highest 104°, at 2, P. M., on the 11th of August. The latest frost was on the 15th of May, and the earliest was on the 28th of September, when the thermometer, at 6, A. M., was 34° Fahrenheit. Frosts are not unfrequently much later in spring and much earlier in autumn, sometimes in August. There was no rain from the 24th of October, 1856, to the 4th of March of the present year. The annual precipitation of rain from October 1, 1856, when meteorological observations were first commenced, up to the present time, September 30, 1857, was 11.64 inches; and that of melted

snow, 4.23 inches; total, 15.87 inches. It rarely rains between the 15th of November and 15th of March of any year. The wind blows almost incessantly, and most frequently from the north in winter, and south and southeast in summer. The snow storms are quite frequent and most violent. The dragoons were stationed one mile below, and I was required to attend them regularly every day, a duty almost insupportable on the coldest and windiest days. Individuals frequently are lost in going a distance of one hundred yards only. The Missouri river was frozen over on the 2d of December, and remained blocked till the 21st of March. It, however, requires much time after the river opens before its safe navigation, owing to floating ice. The first boat arrived from St. Louis about the 20th of May. The navigation of the Big Muddy can only be depended on between the 15th of May and 30th of August. Boats have ascended later and returned to St. Louis in safety, but instances are rare. Private boats cannot incur the risk. A public boat (the Grey Cloud) remained blocked in the ice at Ponca island, twenty-five miles below this point, winter before last, and the J. D. Morton, another public boat, at the mouth of James river, (Rivière Jacques,) about one hundred miles below. Suitable boats, of which, however, none have as yet been constructed, might readily ascend and descend as late as the 1st of November. Later in the season the channel is better defined, and sufficiently washed out. The meteors, or falling stars, were rather more numerous on the night of the 10th of August, though they had been frequently observed for a month previous. They were also numerous on the night of the 7th of September.

Diseases and Deaths.—The accompanying abstract will show the number of cases and deaths for the past year. The post since its establishment has been garrisoned by six companies; at first, four of the second infantry and two of the second dragoons; and afterwards, and at present, six companies of the second infantry. There were five deaths—two occurred among rejected recruits; one had hydrothorax and heart disease on his arrival, and died soon afterwards; the other was far gone with tubercular phthisis. He contracted the disease at Fort Columbus, and was sent out with the hope that the trip, change of scene, and change of air might benefit him. Of the other three, one died of typhoid dysentery from drinking stagnant water while herding horses, and being better than the generality of men, adhered to his duty, when he should have reported sick. Another had haemoptysis from scorbutic diathesis. The fifth, and last, received a severe punctured wound in the head from an iron pitchfork; the particulars of which were reported at the end of the quarter. I do not believe that a single case of genuine intermittent fever has originated at the post. We have, at present, one and the only case of febris typhoides, which might have occurred in the healthiest parts of Virginia. An officer's child was brought here with scarlatina anginosa, but the disease was only communicated to one of his brothers who had been some months previously with us. The other who came with him escaped altogether. I tried the belladonna pretty generally as a prophylactic. Nearly all the cases of dysentery and diarrhœa were scorbutic. The climate is certainly unfavorable to the development of phthisis and affections of the chest generally. I treated two cases only for pneumonia, though some others might have been reported as such; just as we sometimes register a pleuritic stitch—pleuritis. Consumption, from obvious reasons, must be more frequent among the Indians in the vicinity who are more exposed to atmospherical vicissitudes and not as well clothed and fed as soldiers. Besides, when they become sick they receive no treatment likely to benefit them. No case of delirium tremens has been reported; the men are the most temperate I have ever seen, because they cannot get liquor. The case of strictura urethræ, or retentio urinæ, occurred in the same individual, and were repetitions of the same attack. I have not treated a case of syphilis or gonorrhœa that originated at the post. This great immunity may be attributed to the great virtue or inaccessibility of the neighboring women. A large number of cases of pernio, frost-bitten toes, fingers, heels, and ears occurred from the great exposure to which the men were subjected during the severity of winter—such as cutting wood, hauling water, getting ice, and escorting trains between this post and James river; yet, excepting some

nails, no other loss was sustained. The case was far worse, however, with deserters: many of whom froze to death. I have not treated a severely acute case of rheumatism, owing to the great want of humidity of the winter atmosphere. The numerous cases of hemeralopia I attributed to solar light strongly reflected from ice and snow. They were soon cured by constant confinement in a perfectly dark ward.

The only disease about which we need feel the slightest apprehension is scorbutus; the chief disease from which the troops have suffered from the commencement of the Sioux expedition up to the present time. During the last winter the whole command was more or less affected before we received the Irish potatoes, which had left St. Louis in the fall, and had to be deposited one hundred miles below, and afterwards hauled up, frozen, in wagons. They did not reach us before the first week in January. As soon as a liberal issue was fairly commenced, and the men compelled to eat them *raw* as well as cooked, their convalescence was most rapid and recovery complete. After the potatoes gave out, the supply of which was not abundant, the disease showed a strong disposition to return. I then commenced with the wild artichoke—a most excellent antiscorbutic and substitute for the potato. They were edible from the 1st of April to the middle of May. They make a most palatable pickle. They were generally eaten raw with vinegar, sliced or grated. It and the raw potato should always be grated when the mouths of the patients are tender, and their gums ulcerated and bleed from the slighest touch. The artichokes are most abundant about here; the wild onion rather scarce compared with the vicinity of Lookout and Pierre. Later in the season the wild nettles made excellent greens, and were liberally consumed by both sick and well. During the whole of this time fresh beef and the ordinary commissary antiscorbutics, such as lime-juice, pickles, dried fruits, and molasses, were being issued. I most positively assert that the above articles will not prevent, much less cure scurvy after its full development. Whether a more liberal allowance would effect the desired object, remains to be ascertained. After an experience of more than two years in the treatment of scurvy and its complications, I am compelled to believe that the consumption of too much salt meat is the true cause. The disease was unknown to the Fur Company's men prior to our expedition. Since, however, their consumption of salt provisions, procured from the commissary, they have been similarly affected with the soldiers. The Indians eat nothing save fresh game or dried buffalo meat, and put up for winter quantities of dried plums, buffalo berries, choke berries, &c.; hence their immunity. I believe that almost any new vegetable will cure scurvy; the new Irish potato, (raw,) cultivated onion, wild onion, artichoke, &c. I have never derived the slightest appreciable benefit from citric acid.

The hospital is a common log building with two wards, twenty feet square, and a dispensary ten by twenty, and a small kitchen and store-room adjoining. The only inhabitants in the vicinity are the Yanktons, the only band of Sioux recognized as friendly at the commencement of the Sioux expedition. The Poncas are about the mouth of the L'eau qui Court. They plant a little corn, but depend almost exclusively on what game they chance to kill. I have not much acquaintance with their diseases. They, together with all the tribes on the Upper Missouri, have suffered at times from small-pox and cholera. I have met with some consumptives among them. They have very little or no acquaintance with syphilis and gonorrhœa. The squaws are very virtuous or very inaccessible, and are not pretty. The men do not differ essentially from the generality of Indians. I cured two cases of paralysis with strychnine, occurring in a woman and her daughter. The mother had been affected six months, according to her *ipse dixit*, and the daughter, four years. The latter had not been able to make moccasins, nor do other sewing, for several years prior to the exhibition of the medicine. She also walked with considerable difficulty. A case of stricture of the urethra was brought to me a few weeks since from Fort Pierre. The patient, a half-breed Frenchman, had had gonorrhœa a year before; stricture near the neck of the bladder. Before being brought to me he had suffered, at times, the intensest agony from inability to urinate, and had given an Indian doctor

his only horse in order to effect micturition. This was brought about, I am credibly informed, by suction, with the lips applied to the penis. After a few mouthfuls of bloody urine, the bladder was relieved of its enormous distention without further difficulty, for the time being. I found it almost impossible, at first, to introduce the smallest sized bougie or catheter, but he is now perfectly well, and can himself introduce a large catheter without difficulty. I mention the above for the novel Indian *modus curandi*.

VETERINARY.—A very fatal disease manifested itself among the dragoon horses, which is supposed not to have been described in works on veterinary surgery. Four companies of the second dragoons arrived at this post about the 10th of August, 1856, one squadron from Fort Lookout and one from Big Sioux river, the latter accompanied by a number of new or remount horses. The four companies encamped on the east or lower side of the dry ravine, separating the dragoon and infantry camps. About the 20th of August the disease commenced simultaneously in all four companies, and many horses died, not, however, until after the lapse of weeks and months. The following symptoms were observed: first, that, among the remount horses from below, there was a sort of catarrh, or distemper, with running at the nose, and among all the horses a swelling of the skin of the throat and jaw; also, inflammation, swelling, and suppuration of the sheath, tenderness and inflammation of the feet, followed by suppuration at the point where the hoof joins the skin, the hoof, in a measure, detaching itself, and a new one forming in its place. These were also accompanied by loss of the manes and tails. The appetite was uniformly good; but, from extreme tenderness of the feet, they were unable to move about in search of food, and it appears that at that time they were entirely dependent upon grazing, there being no forage at the post for issue. Sorrel horses appeared to suffer most, but no color escaped. The private horses of officers shared the fate of the public animals. A few mules and Indian ponies were similarly affected. The acclimated suffered equally with the unacclimated. No treatment was effectual, or afforded permanent relief. Bleeding in the feet was tried, but its effect was merely temporary. Every case of disease originated on the lower side of the dry ravine, above alluded to. After forage was provided for the horses no new cases occurred, and hence, it is fair to infer that a liberal allowance of forage in the beginning might have rendered the disease much less fatal, or have prevented it. Whether the disease was caused by eating any poisonous herbs, or propagated in any manner by contagion, could not be satisfactorily determined, the origin and progress of the malady being something entirely new even to the Indians and half-breeds of the country. One post mortem was made of a horse that died late in the winter, but developed nothing important; one lung was much diseased, about one-third of the stomach was denuded of its inner lining, and contained botts, and the large intestines inflamed. It is well to remark, that we have no veterinary surgeons in our service, and, consequently, when these noble animals become seriously sick, they almost invariably die.

DISEASES.

The following table, compiled from Abstract No. 5 of this division, represents the aggregate amount of sickness and mortality among the troops serving in the region west of the Great Lakes, during a period of twenty-one years, from January, 1839, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	14,185	6,763	50	476	3.5
Second quarter	13,233	6,897	48	521	3.6
Third quarter	13,200	9,180	57	695	4.3
Fourth quarter	14,956	8,748	39	585	2.6
Annual ratio	13,892	31,588	194	2,274	14
Exclusive of cholera		31,470	166	2,265	12

An examination of this table shows that the annual proportion of cases to the mean strength of the forces is 2.27 to 1; that the corresponding ratio of deaths is 1 in 71.60, or 1.40 per cent.; and that the proportion of deaths to the number of cases treated is 1 in 162.82, or 0.61 per cent. Exclusive of cholera, the deaths were 1 in 83.68, or 1.19 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	14,185		13,233		13,200		14,956		13,892			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	52	0	37	1	97	0	74	0	260	1	1 in 260	18
Febris intermittens quotidiana	190	0	363	0	730	2	456	1	1,739	3	1 in 580	125
Febris intermittens tertiana	175	0	474	0	552	0	493	1	1,694	1	1 in 1,694	121
Febris intermittens quartana	16	0	11	0	19	0	10	0	56	0	0 in 56	4
Febris remittens	14	0	41	0	189	3	40	1	284	4	1 in 71	20
Febris typhus et typhoides	4	0	11	1	40	4	18	3	73	8	1 in 9	6
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Total	451	0	937	2	1,627	9	1,091	6	4,106	17	1 in 241	295

For remarks relative to fevers in this region prior to January, 1855, reference is made to the report of 1856. During the last five years no remarks of special interest respecting this class of diseases are to be found in the sanitary reports. Fevers of an intermittent type were most frequent at Forts Ridgely and Randall.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	14,185		13,233		13,200		14,956		13,892				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	1	0	31	15	86	13	0	0	118	28	1 in	4	.....
Diarrhœa	332	7	717	0	1,862	5	1,041	4	3,952	16	1 in	247	284
Dysenteria acuta	80	1	169	1	388	1	181	1	818	4	1 in	202	59
Dysenteria chronica	6	4	2	1	16	3	18	1	42	9	1 in	5	3
Enteritis	0	1	3	0	5	0	7	1	15	2	1 in	7	1
Hepatitis acuta	2	0	9	0	12	0	6	0	29	0	0 in	29	2
Hepatitis chronica	6	1	43	1	3	0	6	1	58	3	1 in	19	4
Obstipatio	198	0	282	0	321	0	264	0	1,065	0	0 in	1,065	76
All other diseases of this class	284	0	395	0	381	0	337	5	1,397	5	1 in	279	100
Total	909	14	1,651	18	3,074	22	1,860	13	7,494	67	1 in	112	539
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	7,376	39	1 in	189	531

Asiatic Cholera is reported by Surgeon T. C. Madison as having occurred in a detachment of the second infantry on board the steamer Arabia, while ascending the Missouri river to Fort Pierre, in June and July, 1855. Fifty-two cases and nine deaths are reported. The report gives nothing of special interest in regard to the symptoms or treatment; nor is anything said about its exciting cause. This disease also appeared in a battalion of the sixth infantry, en route from Jefferson Barracks to Fort Kearny, in April, May, and June, 1855. Twenty-four cases and fourteen deaths are reported by Assistant Surgeon A. T. Ridgley, who states that the soldiers had been exceedingly intemperate while at Jefferson Barracks. All the cases were treated, in part at least, with calomel. All who recovered were ptyalized, but one patient who was salivated did not recover. For accounts of Asiatic cholera, as it appeared in this region prior to January, 1855, see the report of 1856.

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	14,185		13,233		13,200		14,956		13,892				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	96	3	134	1	44	1	104	0	378	5	1 in	75	27
Catarrhus	1,396	0	636	0	560	0	1,401	0	3,993	0	0 in	3,993	287
Phthisis pulmonalis	9	9	10	6	14	8	11	4	44	27	1 in	1.6	3.1
Pleuritis	69	0	51	2	28	0	49	1	197	3	1 in	66	14
Pneumonia	37	7	43	1	12	1	42	6	134	15	1 in	9	9
All other diseases of this class	30	1	33	0	55	0	26	1	144	2	1 in	72	10
Total	1,637	20	907	10	713	10	1,633	12	4,890	52	1 in	94	352
Rheumatismus	379	2	443	0	416	1	483	0	1,721	3	1 in	574	123

Epidemic Catarrh prevailed at Fort Ripley in the fourth quarter of 1855, and in the first quarter of 1856. Assistant Surgeon E. J. Baily remarks that "the disease was characterized by great severity and obstinacy, and its almost invariable complication with either acute bronchitis, pneumonia, or pleurisy. In some instances there was every indication that the entire contents of the thoracic cavity were implicated, not excluding the heart." During this epidemic almost all the principal diseases were impressed with it, and assumed the typhoid type.

In the report of 1856, it was stated that the ratio of cases of phthisis pulmonalis, in this region, to the mean strength of the forces, was 4.1 per 1,000. The more extended series of statistics now given shows the ratio to be 3.1 per 1,000.

SANITARY REPORT—FORT RIDGELY.

Assistant Surgeon N. S. Crowell: December, 1857.

[Extract.]

* * * * * * * * * * *

"About the first of November diseases of the throat and respiratory organs began to prevail, and a marked predisposition to them continued throughout the month. In but few cases, however, were the lungs affected; the principal seat of the disease appearing to be the throat and bronchia. Many cases of these disorders occurred simultaneously, and from the universality with which it afterwards prevailed, not only among the troops and others exposed to the inclemency of the weather, but also among children, it is probable that the origin of the disease was due to some peculiar condition of the atmosphere. Disorders of this nature prevailed also, as I afterwards learned, at St. Paul and its vicinity, to a considerable extent. During the continuance of the disease, but few persons at the post escaped without a sore throat or catarrh, though in many instances so slight as not to require medical interference. The quarterly report does not exhibit the full extent to which the disease prevailed in the command, as many cases occurred in which the attack was so mild as not to disqualify the subject of it for duty; a slight cough or hoarseness only, continuing for a few days, and passing away without materially affecting the health. In the majority of the cases which came under my inspection the tonsils were more or less inflamed, and sometimes enormously swollen. The inflammation in many cases was intense, and not confined to the tonsils, but involved the uvula, velum palati, and posterior fauces generally, and in a few instances extended even to the salivary glands, occasioning a disagreeable spontaneous ptyalism. When the inflammation of the tonsils was so slight as to present a mere blush over the parts, the affection was recorded as catarrhal or bronchial, as the symptoms of the one or the other predominated. Cephalalgia, difficult deglutition, and high inflammatory fever (the pulse sometimes rising as high as 130 beats in a minute) accompanied the severe attacks of tonsillitis. The average duration of the disease was about six days, the local inflammation terminating in every case, both among children and adults, by resolution. In the fatal case of pleuritis, recorded, the patient was admitted into the hospital in consequence of a phlegmonous inflammation of the front of the neck, implicating the submaxillary and parotid glands. The true condition of the interior of the throat could not be learned by inspection, as the jaws could barely be separated, but it was undoubtedly much involved in the disease. An insidious and typhoid form of pleuritis supervened on the fourth day, and the patient died on the eighth from his admission.

"The weather, during the prevalence of these disorders, though unusually mild, was exceedingly damp and unwholesome, from frequent though not heavy falls of rain and snow; the meteorological register for November showing twelve days of wet weather, yielding only 2.84 inches of water."

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The troops at many stations in this region, and especially at Forts Laramie, Pierre, and Lookout, and at Camps Walbach and Platte Bridge, have suffered from scorbutus. From the

various reports on this subject, the following from Fort Laramie have been selected as embracing all the points of special interest:

SANITARY REPORT, FORT LARAMIE.

Assistant Surgeon E. W. Johns: December, 1858.

There is but little of interest to report, with the exception of what relates to scorbutic disease, the tendency to and practical development of which was observed last quarter. The condition of the entire command during this quarter was scorbutic, although only fourteen fully developed cases were recorded on the report. So strongly pronounced was the scorbutic condition that I deemed it advisable to recommend to the commanding officer the administration to the command not on the sick report of the same preparation of the cactus used in the hospital.

The desiccated vegetables seemed unavailing, though most useful otherwise as additions to the food of the men; no other vegetables could now be provided, and a long winter was to be passed through.

For the information of the department, and to show what measures I have taken and recommended, I respectfully inclose the following copies of communications made by me to the adjutant's office of this post.

With respect to the use of the juice of the cactus, (made by cutting the leaves in slices after slightly cooking the outside by holding them a brief period over fire, and then steeping the pieces in water until a thick greenish-brown mucilaginous mixture is obtained,) I would remark that great benefit has attended its administration, as at the end of the quarter all the cases were convalescent. No other remedy appeared to have the slightest effect upon the disease.

I have long since ceased to place any reliance on citric acid, and have seen no good results from the preparations of potash. All the cases were proceeding from bad to worse, until I commenced the use of the cactus, which I had previously employed in Texas.

But amendment was soon apparent under the use of the cactus, though not so rapid as was desirable; still, in the absence of the potato, (the best antiscorbutic,) the cactus was most useful.

In consequence of my recommendation, the commanding officer caused to be procured also, in the last week in December, a supply of wild celery, growing twelve miles from this post, superintending the search for it himself. It is contemplated to make the celery a regular article of diet for the companies during the winter, should it be found in sufficient quantities for the purpose. In the hospital I intend using both the juice of the cactus and celery, and look for good results. I have omitted to mention that the dose of the juice of the cactus is nearly a tumblerful mixed with half a gill of whisky, (bought from the commissary department out of hospital funds, as the hospital liquors would otherwise be expended,) and flavored with extract of lemon.

My observation of scorbutus leads me to conclude:

I. That the *primary* cause of scurvy is the absence of material furnished to the blood by fresh vegetable matter.

II. That from the primary cause the disease is *developed* by,

1. Depression from exposure to cold, particularly during guard duty at night, and the long continued cold of winter.

2. Depression from fatigue.

3. *Insufficient ventilation*, and crowding a number of men in a restricted place, whether in company quarters or on shipboard.

4. Too great a preponderance of salted food.

III. With respect to prevention and treatment.

1. That citric acid alone has but little effect upon the disease, and the same with respect to potash.

2. That the first step is to procure fresh vegetable matter.

3. To issue stimulant and tonic remedies.

4. To supply a sufficient number of cubic feet of pure air for respiration, and the avoidance of the radiated and confined heat and air of rooms heated by stoves.

5. The diet should be full, nutritious, digestible, and chiefly of fresh meat, and *boiled* meat, if possible.

6. To encourage amusements and counteract the mental depression attendant upon the disease.

In conclusion, officers do not have the disease developed, because they have more pure air to breathe, much less exposure, better diet and clothing.

The mountain men of this country do not have scurvy, because they are not crowded, have plenty of fresh air, are subjected to no continued labor or exposure, being strongly inclined to lead a lazy Indian life, and live chiefly on unsalted fresh meat.

The quartermaster's employés do not have scurvy, because they are not exposed to night duty; their pay being better than that of the soldiers, they can afford more luxuries in the way of diet, and their daily duty and exposure are not excessive.

On the other hand, I have seen a command liberally supplied with fresh venison, and saving their meat ration, yet have scurvy badly, vegetables being entirely wanting; I have also seen a bad case of scurvy occurring in the lime groves of Florida, though it was the only one.

After nearly two years' observation of scurvy, I have come to the conclusion that scurvy is a blood disease with certain alteration of tissue, consequent, dependant primarily upon the absence of certain principles (to me unknown, nor does any writer seem to be particularly clear on this point) furnished by fresh vegetable matter. That this disease exhibits different grades, from a positive development to what might be called only, apparently, a tendency, or rather a scorbutic condition or predisposition. That the primary condition may proceed at once to full development, but that ordinarily it receives its most rapid and favorable development from the circumstances mentioned above, and principally from bad ventilation and insufficient respiration, exposure to long continued and depressing cold, depressing fatigue, and loss of regular nightly rest, and insufficient and badly-cooked food.

The communications referred to by Assistant Surgeon Johns are two in number, dated November 27 and December 29, 1858. In the first, he reports the presence of scurvy among the troops, and recommends the daily issue of desiccated vegetables; the issue four times in each week of pickles, dried apples, molasses, and vinegar; attention to ventilation of the men's quarters, especially at night; personal cleanliness of the men; good cooking; and mental and physical amusements and recreations.

In the second, Assistant Surgeon Johns recommends, in addition to the measures above stated, the daily administration of the juice of the cactus to all the companies, and the use of water-cresses. He also expresses the opinion that desiccated vegetables will not remove or cure scurvy, and that to prevent it, they should be issued daily and in much larger quantities than at present. Assistant Surgeon Johns also animadverts upon the action of the Commissary General of Subsistence in declining to furnish the potatoes called for by the commanding officer at Fort Laramie, and states that they were brought to that post by private individuals after the time when it was deemed impossible to do so by the Subsistence Department.

This report was referred to the Commissary General, with the following abstract of the cases of scurvy that had occurred among the troops stationed at Fort Laramie, Camp Walbach, at Platte Bridge, and in Utah, in 1857 and 1858:

Abstract of cases of sickness from "scorbutus," in Utah forces, Fort Laramie, Camp Walbach, and Platte Bridge, in 1857 and 1858.

UTAH FORCES.		
Month.	Cases of scurvy.	Strength of command.
1857. November	2	1,624
December	3	2,069
1858. January	3	1,838
February	3	1,887
March	6	1,723
November	1	3,387
December	2	3,387

FORT LARAMIE.		
Month.	Cases of scurvy.	Strength of command.
1857. November	0	343
December	2	329
1858. January	6	324
February	13	318
March	21	316
November	4	223
December	6	216

CAMP WALBACH.		
1858. November	4	97
December	0	95

PLATTE BRIDGE.		
1858. November	0	75
December	2	77

SANITARY REPORT—FORT LARAMIE.

Assistant Surgeon E. W. Johns: March, 1859.

The health of the command, as contrasted with its state in the preceding quarter, shows a marked improvement, and is now, at the end of the quarter, remarkably good. The measures detailed in my last report as adopted to redeem the command from the scorbutic condition in which it had fallen, were attended with success. The effect of remedies was most marked and satisfactory.

The juice of the cactus leaf, as prepared for the cases of scurvy, proved particularly well adapted to their treatment, as, under its use, the first set of scorbutic patients were convalescing before other remedies were additionally employed. Afterwards, in consequence of my recommendation to that effect, the commanding officer caused, weekly, six or eight barrels of water-cresses (improperly called here wild celery) to be obtained from a point twelve miles from the post. These were put in charge of an officer, and issued to the companies as part of their daily food.

In most cases it was relished by the men, and its use in this way (although the cases in hospital were all convalescing under the use of the cactus, before the cresses were obtained) prevented the development of further general scorbutic diathesis in the command. Individual cases of slight importance, particularly towards the end of the quarter, occurred; but in each instance the disease was the result of the carelessness of the patient to his own interests, in the neglect of the vegetable matter thus provided for him.

These cases rapidly recovered under the combined effect of the cactus treatment, cress diet, and exhortations to do all duty they could find to do.

In conclusion, I would remark upon the satisfaction felt from the readiness of the Colonel commanding to listen to, and act in general accordance with, the official and professional suggestions made with regard to measures to be adopted for the removal of the scorbutic disease so prevalent last quarter. In addition to other means, two new wards have been added to the hospital. These are worthy of remark from the excellent working of the arrangement for ventilation which I requested might be made, and which are exceedingly simple, believing, with Mr. Calvert Vaux, architect, "that one quarter of the whole secret (of ventilation) lies in the hole in the bottom, and the remaining three quarters in the hole in the top."

Into these new wards fresh air is introduced by a wooden pipe, six inches square in capacity, carried from the outside of the building, under the floor, to the side of the chimney, from which it enters the *room* just *above* the floor, the bottom of the opening resting on the floor.

This inner opening of the pipe can be reduced to an inch in diameter when a wind storm on that side of the building renders it necessary.

In the center of the ceiling of each ward another wooden pipe of the same capacity springs up and projects through the roof several feet. There is an arrangement at the top by which the wind, striking a slanting surface, according to its direction, pumps, as it were, the air from the room below.

The opening in the ceiling is never contracted, and there is always a sufficient upward draft to carry up any light object placed at the opening, while there are no objectionable drafts with respect to the results of this ventilation.

The difference between the old and new wards is most marked. In the new wards there is a total absence in the morning of that indescribable, stale, matutinal odor which neither care nor cleanliness will prevent, when, as is the case with the old wards, there is no proper ventilating apparatus.

In speaking of these means of ventilation, as to their manner of working, it should be understood that the period just after the completion of the new wards is the one referred to, as at that time the walls and windows were much more impervious to external air than at the present, when, from the shrinking of green timber, additional ventilation is obtained, and more than is desirable. There was not the proper material for filling in the walls, which, at present, are only composed of the frame-work, boarded and battened externally.

As soon as the season shall be sufficiently advanced, it is proposed to finish the walls by filling in with adobes.

SURGEON GENERAL'S OFFICE,
March 23, 1859.

SIR: I am instructed by the Surgeon General to inform you that your sanitary report for the fourth quarter of 1858 has received his special attention, and has been referred to the Commissary General, a copy of whose reply is herewith transmitted for your perusal.

While the Surgeon General approves and commends your official course in relation to the prevalence of scurvy among the troops at Fort Laramie, he directs me to invite your attention to a few points connected with the development of that disease, concerning which more specific and detailed information is desirable to give completeness to your report. Your report states that the officers and quartermaster's men at the post, and the mountain men of the adjacent country, are exempt from scurvy. Making due allowance for the different conditions, as to diet, clothing, &c., &c., of officers and enlisted men, and confining the comparison to the three classes, mountain men, quartermaster's men, and soldiers, the conclusion, from the data in this office, is that in all respects, except *fresh air*, and perhaps the *mode of cooking food*, the soldiers should be the least liable to scurvy; that is, provided they used the means which the officers could command for them. It is usually the case that quartermaster's men, at military posts, have harder work, and are more constantly exposed in the open air than the soldiers, and that they dwell in tents, while the troops are comfortably housed. The only duty of the soldier in garrison which would constitute an exception to this rule, is *guard duty at night*. On referring to the commissary's abstract of issues to the troops at Laramie for the fourth quarter, 1848, it is ascertained that the issues of fresh meat to quartermaster's men, was much less in proportion than to the troops, and that while desiccated potatoes and mixed vegetables were issued to the soldiers, in what might be considered large proportions, none were issued to the quartermaster's men.

Your report states that the mountain men subsist "chiefly on unsalted fresh meat." If they

do not eat the "wild celery," or pulp of cactus, or other vegetable food, how is their condition, as regards scurvy, better than that of the troops at a post where the commissariat had 526 head of beef cattle; 7,138 rations of mixed desiccated vegetables; 8,706 rations of desiccated potatoes, and large quantities of dried apples, pickles, vinegar, sugar, and molasses?

The impression left by a careful perusal of your report is, that the scurvy at Laramie is due chiefly to the following causes:

1. To want of sufficient ventilation of the quarters allotted to the troops.
2. To want of a due proportion of regular exercise in the open air.
3. To the manner in which their food is cooked.

These impressions may be erroneous. You, however, have the opportunity for stating facts of much value in relation to the etiology of scurvy, and it is expected that you will cheerfully respond to this call for information. You are, therefore, requested to report upon the following subjects:

1. The kind of buildings occupied by the troops at Laramie; the dimensions of their dormitories; the number of men occupying them; the mode of heating those rooms; the manner of cleaning them, whether by scrubbing with much or little water, or with dry sand; how often cleaned; the provision made for ventilation, and if the ventilators can be or are closed by the soldiers at night.

2. The manner of cooking the food; whether the fresh beef is ever broiled, roasted, or baked; whether the desiccated vegetables are first soaked in cold water, and then slowly boiled in the same water.

3. The duties of the troops; the average period of guard duty for each soldier; the length of time on post at night. Is coffee saved from the company kitchens, and served to the guard at night?

4. The duties of the quartermaster's men; their habits as to clothing, exercise, food; whether living in tents or in quarters; if the latter, the size of the rooms and the same particulars as requested concerning the dormitories of the soldiers. Do the quartermaster's men live upon their rations, or do they habitually buy other kinds of food?

The object of these inquiries is to arrive, if possible, at the true cause or causes of this disease in troops at Laramie, for there would seem to be some local cause operating to produce scurvy at that post. In five months, from November 1, 1857, to March 31, 1858, there were only seventeen cases of scurvy reported in the army in Utah, averaging 1,800 officers and men, while during the same period forty-two cases are reported at Fort Laramie in a command averaging 325 officers and men. During that time the troops in Utah were much exposed in tents, were without vegetables, and did not have some of the component parts of the regular ration with which the commissariat at Laramie was fully supplied.

Very respectfully, your obedient servant,

R. C. WOOD,
Surgeon U. S. Army.

Dr. E. W. JOHNS,
Assistant Surgeon U. S. Army, Fort Laramie, Nebraska.

OFFICE COMMISSARY GENERAL SUBSISTENCE,
Washington, February 19, 1859.

SIR: Herewith are returned Assistant Surgeon John's sanitary report from Fort Laramie for the fourth quarter, 1858, and the abstract of sickness from "scorbutus" in the Utah forces, Fort Laramie, Camps Walbach and Platte Bridge.

Inclosed, also, is a copy of a letter from this office to Brevet Major Waggaman, declining to

send potatoes to Fort Laramie, in compliance with a requisition from Lieutenant Mendenhall, acting assistant commissary subsistence, at that point. The date of Lieutenant Mendenhall's requisition is unknown at this office.

The comparison of the number of cases of scurvy in the Utah forces and Fort Laramie, in the winter of 1857 and 1858, presents a remarkable contrast, and when taken in connection with the far greater exposure of the Utah forces, and their want of several of the articles of food furnished by the commissariat at Fort Laramie, would lead to the belief that other causes than exposure and want of fresh vegetable food had produced so much of this disease at Fort Laramie.

The fact that the mountain men, officers, and quartermaster's employés at that post, have been free from scurvy, would go far to show that the use of fresh potatoes was not essential to prevent scurvy, and if closely examined into might perhaps point out a mode of life by which this disease among the troops could be prevented.

When the approach of this disease was seen at an early period of the autumn, it is to be regretted that recourse was not sooner had to the fresh vegetables around the post, and which could have been procured at so little expense, viz: the wild celery, cactus, and perhaps other plants; and the use of fresh meats instead of salted provisions, with other attention to the ventilation, &c., &c., as pointed out in Assistant Surgeon John's communication to the commanding officer, of December 29, 1858.

Attempts have on several occasions been made by this department to forward potatoes (fresh) to Fort Laramie from Fort Leavenworth, but the loss and decay has been so great as to make the expense for the benefit conferred, very heavy. On this occasion it was deemed the less necessary, as that post was liberally supplied with desiccated mixed vegetables, and desiccated potatoes.

Herewith is also inclosed a list of stores on hand on the last of December, 1858, at Fort Laramie, which will show the varieties of food at that post.

Very respectfully, your most obedient servant,

J. F. TAYLOR,
Acting Commissary General Subsistence.

Brevet Brigadier General T. LAWSON,
Surgeon General.

OFFICE OF COMMISSARY GENERAL SUBSISTENCE,
Washington, August 31, 1858.

MAJOR: Yours of the 27th instant, transmitting a requisition of Lieutenant Mendenhall, fourth artillery, acting commissary subsistence at Fort Laramie, upon the commissary of subsistence at Fort Leavenworth, for potatoes, is received.

Under the circumstances of the case, particularly the fact that it will be almost an impracticability to furnish the matured potato at Fort Laramie, except in a frosted condition, and that an ample supply of desiccated vegetables are at that post, it is deemed unadvisable to comply with this requisition.

Very respectfully, your obedient servant,

A. E. SHIRAS,
Captain, Acting Commissary General Subsistence.

Major G. G. WAGGAMAN,
Commissary Subsistence, St. Louis, Missouri.

Return of provisions on hand at Fort Laramie, Nebraska Territory, December 31, 1858.

Beef cattle	number	526	Candles	pounds	2,916
Bacon	pounds	85,543	Soap	pounds	15,560
Bacon hams	pounds	9,588	Salt	bushels	454
Flour	pounds	185,254	Vinegar	gallons	3,587
Hard bread	pounds	271,561	Coffee	pounds	20,073
Tea	pounds	737	Sugar	pounds	53,170
Rice	pounds	5,928	Molasses	gallons	653
Beans	bushels	624	Pickles	gallons	110
Whisky	gallons	203	Apples	pounds	12,462

DESICCATED VEGETABLES.

Mixed, rations	7,138
Potatoes, rations	8,706

SANITARY REPORT—FORT LARAMIE.

Assistant Surgeon E. W. Johns: December, 1859.

The reinforcement of the command at this post by the two companies from Cheyenne Pass and the two companies from Platte Bridge, ordered here upon the breaking up of the posts at those points, brought to my hospital an additional number of cases of scurvy: eight cases from Camp Walbach and six cases from camp at Platte Bridge. A new command, with the exception of one company, was also to form the garrison during the coming winter, and new circumstances in the history of scurvy might arise to throw light upon some of the perplexities attending the subject. It therefore seems proper to have deferred reporting until the result of these additional cases should be known, in order that further information, if any of interest should be developed, might be attained. The last two cases, nearly recovered for duty, left the post with their companies, which was one of the four companies en route for Fort Randall, under Colonel Monroe's command.

Before particularizing the points upon which I am directed to report, I would premise that in the comparison between the three classes, mountain men, quartermaster's men, and soldiers, that, while the gravest point of distinction in the commemorative circumstances of soldiers and of quartermaster's employés is the guard duty of the soldier at night, there is also, I think, another derived from the guard duty during the day; and this opinion is formed from an analysis of guard duty and its influences, physical and mental, and from contrasting it with the mental and physical conditions of the quartermaster's men.

In the topography of a sentinel's post the chief characteristic is the "*bee line.*" This is the straight and narrow path—from it there is turning neither to the right hand nor to the left. Longitudinally "thus far and no further" is the fiat; and thus, for two mortal hours, or any given more or less mortal time, according to the exigencies of the service or thermometer, the military pendulum vibrates his monotonous existence until the twice-blessed "relief" releases him from the effort to keep his falx cerebri in and parallel to the same plane of direction as that of his post.

Thus, there is necessarily a monotony of mental action, depressing in its character, too, from this very monotony affording no stimulus to resist the morbific effect of exposure. Of course, I particularly refer to the garrison duty of a peace establishment, when there is little to

put the soldier on the *qui vive* of mental and physical vivacity—and in ten years I have never known a sentinel but twice to have a good excuse even to cry "fire."

Now, add to this hopeless mental monotony the effects of depressing cold, particularly at night, after a day of monotonous *pendulistic* fatigue, and it would seem that no better reagent could be desired for either producing diseases characterized by debility, or for developing such a disease from a germ derived from other causes. This is, of course, as before remarked, more noticeable as connected with guard duty at night, but the same causes of mental monotony, physical monotony, *fatigue* monotony, are also at work in the day-time, though in a less degree.

The same holds good as to the other duties of the soldier. Drill is also another effort to keep the falx in the plane of certain directions and to produce pantographic results with bodies, limbs, and muskets or other weapons. Police duty is a daily funeral procession around the garrison with twig brushes instead of cypress boughs for the mourners.

And so with the individual action of the soldier, when left to himself, after the various processes above have been duly gone through with. Little temptation does he seem to feel to do aught but vegetate in his bunk, with some occasional spasmodic effort at foot-ball or other game—possibly to hunt or fish a little; when, perhaps, there is additional inducement in the shape of a cask in the bushes somewhere near his garrison, whereby, he superadds to any other bad physical and mental influences those derived from the depression attendant upon alcoholic stimulants most villainously adulterated.

The labor of quartermaster's employés is theoretically greater than that of the soldier, but it is regular. It is not attended by that monotonous routine and confinement which the soldier is subjected to in the performance of his duties. Each quartermaster's man is an *individual*, under general supervision, indeed, but exercising his powers, mental and physical, according to the requirements of the particular work he may have to do. Does he drive a team? He does not drive it up and down over a distance geometrically described as being the shortest between two given points, but he has the management of his animals and varied scenery to employ his thoughts. If he is a carpenter, wheelwright, or blacksmith, his mental motives and physical employment are those of an *individual* working with forecast, and not by rote. Add to these influences, good pay and regular nightly rest, and the wholesome conviction that his employment depends upon his restraint, to at least a great degree, of whatever vicious tendencies he may have, and the sum shows a balance greatly in favor of the quartermaster's man.

The mountain men of the country are even in still better commemorative circumstances. They are not at all crowded in their accommodations; have plenty of fresh air; do but little labor; and just enough to give them wholesome, but not fatiguing exercise, and to enable them to provide for their families. They have generally domestic relations, of not very elevated degree, indeed, but regular domestic connections with the Indian women, recognized throughout the country. It is true that their diet is chiefly unsalted meat, but it is easy for them to procure, and many of them do procure from the trading stores, many comfortable additions to this diet. And I am credibly informed that they have used the cactus and whatever *greens* they can or are not too lazy to get. They can even obtain desiccated vegetables from the stores, and have been seen to purchase them. Onions are also brought by traders occasionally from New Mexico.

The mountain men then have this favorable conjunction of circumstances. They live a free, open Indian life, crowded neither as to quarters nor as to communities. They have a sufficiently good diet apparently; also sufficiently mixed and varied. Their employments are such as not to fatigue them particularly, nor to expose them, except occasionally, to severe weather, for they love a lodge fire as much as an Indian, and when they are exposed they are well protected by clothing of furs, buckskin, blankets, or ready-made clothing.

With respect to the apparent advantages of the post over the mountain men, as to the items of 526 head of cattle and the abundant supply of desiccated vegetables, the reality is this: that

the post cattle (tough and stringy as they are) are more than overbalanced by the unnumbered deer and antelope furnished from nature's commissariat. It has also been seen that the mountain men can and do procure vegetable matter fresh and desiccated. In addition, the desiccated vegetables in the commissary department were next to being useless, from the very limited quantities allowed to be issued. To be of any use the desiccated vegetables should be used in large quantities, of daily issue, as prophylactics. Carefully stored up in boxes and issued homeopathically the vegetables can, and my observation has taught me do, exercise not the slighest effect in raising a command from a scorbutic condition. They would be most valuable as agents for varying the diet of men, which, physiologically, is almost as important as the most substantial parts of food. It would not seem good policy to store up material until the time in which it could be advantageously used shall have passed and the good effect be negatived by the exceedingly diminutive "portions" issued. The other articles of the commissariat, dried apples, pickles, vinegar, sugar, molasses, &c., can all be obtained in the country at trading stores; and, although the diet of the mountain men is "chiefly unsalted fresh meat," it is also possible, and, indeed, easy for them to obtain other additional varieties to their food, while, also, it has been shown that even leaving out of consideration these additions to their food, they are still in a better case than soldiers, on account of differing and superior conditions, mental and domestic. Thus, the condition of the soldier shows little, if any, superiority over that of the mountain man as to the *desiccated vegetables*, while at the same time the superiority as to the *meat* is decidedly in favor of the mountain man by as much as the difference is between wholesome, fat, rich, wild, venison, supported by jerked buffalo flesh; and tough, stringy, indigestible beef, followed up with a due proportion of the salt provision, furnished by decimated multitudes of the species "sus scrofa."

As to this point of difference, the comparative value of *dried* meat of the Indian or voyageur (jerked meat) and the dried meat of the soldier, (salt meat,) it should be observed that the jerked meat loses merely the watery portions, while, in meat dried by salt or in salt brine, in the words of Dr. Ure, "it happens that, as kreatine is soluble in brine, but little of this valuable element remains in the contracted and solidified mass known as salt junk, which may either be of beef or pork, and employed as food upon much the same principle as that ascribed to alligators, who swallow stones to appease the cravings of an empty stomach.

"Kreatine has evidently a singular connection with muscular energy, as it exists in greatest quantities in the flesh of animals most remarkable for muscular power and activity. To exclude it, therefore, is to introduce an element of weakness in the dietary of our seamen that cannot fail, in the long run, to show itself, and hence the enormous prostration of strength which accompanies the sea-scurvy."

In the Encyclopædia of Chemistry by Booth and Morfit it is very judiciously observed that "the brine of salted meat abstracts and retains all the phosphates, acids, kreatine, &c., necessary to the formation of blood, and hence its scorbutic action, owing to a partial reduction by this process to a mere supporter of respiration; and hence, also, its inability to effect the perfect replacement of the wasted organism."

And the same and more with respect to "land-scurvy," which is the same thing, with this shade of difference, that land-scurvy is said to be, by Dr. Wood, (page 243, vol. 2,) "more obstinate under treatment, probably, because the constitutional tendency must be stronger to have led to the disease under circumstances so much less favorable." And again, "when the causes upon land are as powerful as at sea (and there is great approximation to these in garrison) the ravages of the complaint are not less fearful."

The conflicting commemorative circumstances in the history of scurvy seem to me to be better understood by regarding this disease as being a blood disease, dependent upon both lesion of nutrition and lesion of respiration, resulting from imperfect supply, in a natural or recent

state, of the nitrogenous compounds of the starch group, and of the saline and earthy matters entering into the tissues of the body and rejected by various outlets.

This imperfection of supply is not only with respect to quantity, but also to the *ratio* of the supply afforded by the components derived from each class.

Two great divisions of the kingdom of nature, the animal and the vegetable, furnish, in their respective quotas of food-material, components analogous, if not identical; as, for instance, gluten corresponding with coagulated albumen; vegetable albumen with albumen of the egg; casein with avenaceous and leguminous forms of vegetable casein. Both supply nitrogenous food, and it is by many physiologists thought that both furnish material for respiration, "that the carbon given off is partly derived from the gluten or flesh of the food as well as from the starch or fat." (Johnson's Elmts. Ag. Chemistry, p. 340.)

The way in which food furnished from the animal kingdom in, as it were, a *preserved* state, by salt or otherwise, is insufficient for the purposes of renewal of tissue, and thus tends to the development of scurvy, has been already indicated.

Food furnished by vegetables in the winter season is also more or less *prepared* vegetable food destitute, to a great degree, of what the human organism evidently needs to repair its waste and rebuild tissue. That is to say, that while the main principles of sustenance are furnished, some of the components of vegetable food in its natural state are necessarily, from the course of preparation, lost; as, for instance, in the desiccation of vegetables, the extracting of lime-juice from the fruit, the alteration from fresh to *dried* peas, beans, apples, or other fruits. Then the *way* in which the food is *presented* seems all important. It may seem to some very practicable to arrive at such a pitch of knowledge as to be able to extract proximate principles to meet certain supposed conditions; but why should death ever put a term to existence, animal or vegetable, or to such reasonings? The human organism is not alone a crucible for producing purely chemical results; nor, as Surgeon Tripler justly remarks, in his pamphlet on scurvy, is lemon-juice all citric acid; nor are potatoes all potash. And Dr. Carpenter, with equal justice and great delicacy, suggests, with reference to Dr. Garrod's theory for the cure of scurvy by the use of alkaline remedies alone, that "a much larger induction is necessary for the establishment of this position."

Thirty-six parts of carbon by weight, with forty-five of water, ought apparently to form one and the same substance; yet, how different are the starches, cellulose, gums, mucilages, and sugars from each other, though belonging to the same group, and, in composition, identical. And in household chemistry every matron knows, though not able, perhaps, to explain why, that given certain cupfuls of this and tablespoonfuls of that, it will not do to mix them indiscriminately, but it is necessary to be "sure" and first "beat up" and then "add" and then "stir," as the case may be, in a certain definite order of sequence; sometimes even carrying this particularity of prescription to the apparently superfluous direction of "serve while hot."

I believe that were animal and vegetable food resolved into their ultimate components, and these applied *individually*, or even in combination of many of them, to produce results such as are aimed at in attempting to remove scurvy, or any disease depending upon lesion of nutrition, whether respiratory or digestive, that nothing satisfactory would be established.

Potash may be given; I and others have found it not to be depended upon; "larger induction" is still necessary. Citric acid may be prescribed; and, as far as experience for several years in Texas and at this post has enabled me to observe, it has not the slightest value. Even vegetable matter restricted to one form may not prevent scurvy; as in the case of scurvy I saw occurring amongst the lime groves at Fort Dallas, Florida, where the parade was covered with lemons, limes, and oranges. With reference to this case, however, as well as my recollection now serves me, the troops at that time at Fort Dallas were without fresh beef, and the flour was bad.

It is food in its most perfect adaptation as to quantity, quality, and the proper ratio of the components—in other words, food afforded in its most *natural* state—that is needed in scurvy and to prevent it.

And herein appears to consist in great measure the superiority of the potato in its natural state—that is, undesiccated. The covering of the potato is *cork*, and it is by this protected in a much greater degree from changes that take place in most other vegetable substances put away for winter use.

Now, the imperfection which causes scurvy would seem to be found in insufficient ratio of fresh vegetable matter to the other constituents of blood and tissue-forming substances. Not that deficiency in *other* departments of food is not of great importance; but, primarily, scurvy would seem to result from this imperfect ratio of fresh vegetable matter to the rest of the diet, much in the same way that the excess of albuminous components favors the arthritic diathesis, and the excess of farinaceous matters tends to the production of the rheumatic diathesis. (Carpenter's Physiology, page 383.)

I am not certain whether I so express myself as to make my meaning clear, but the view of the subject that seems to approach nearest the truth is, that food presented to the human economy in its most perfect adaptation to the latter in supply, kind, and proportion, is necessary to prevent scurvy; but the *point de départ* of the disease is primarily to be found in the deficiency of the vegetable components, and with respect to these, not only of the *materials* considered as so many items which they should furnish the blood and tissues, but of the vegetable admixture as a *whole*, combined, in all its parts, in a fresh, natural, and, as far as possible, recent state.*

This I take as the rule. But it no more follows, given the *primary* conditions of the disease that scurvy should always result, than that an individual living in a malarious district should have periodical fever, or exposed to the poison of yellow fever be attacked by it, or unprotected by vaccination be necessarily obnoxious to small-pox when within the sphere of contagion.

Thus, *generally*, nothing further is necessary to produce the disease than these primary conditions; but the apparently anomalous non-occurrence of scurvy when they are present in force, seems to me to be explained by the existence of developing causes additional. Where these are most noticeable, is in the comparison of the classes of persons affected with respect to the commemorative circumstances in which they respectively stand; and also in other cases where scurvy apparently *ought* to follow, but does not. In these, the conditions primary of the disease exist; but they are either counteracted by other influences, or the developing circumstances are wanting—as in the case of officers, of quartermaster's men, of the troops in Utah. The first two classes have already been referred to; yet I may remark in connection, that even officers may sometimes have scurvy, and I have often seen among them a *scorbutic tendency*, showing that the primary conditions of the disease were acting to a certain extent, and only needed the developing causes to make them fully apparent. And it has been seen at this post that where the primary causes, which failed to produce any result as to the quartermaster's men in the early and middle parts of last winter, had become sufficiently *intensified* by long continuance that several cases of scurvy occurred amongst them late in the spring. These cases did not increase in number, as just about the same time the wild onion began to make its appearance.

In accounting for the absence of scurvy in the troops in Utah, mental influences may well be taken into consideration. These troops went into winter quarters in vigorous health from the wholesome march across the plains. As to the circumstances going to favor their *morale*, they were in a state of excited expectancy; to vary the dull drudging of a peace establishment, with its attendant and harrassing Indian police duty, they had actually the prospect of something like real war in the land of the saints, just over the mountain. They seem to have been cheerful; and if the songs (as songs are said to show the *animus* of a people) which the muse of the expedition prompted are to be taken as indications, they appear to have fully adopted Mark Tapley's philosophy, and even to have been "jolly." In the history of all armies in all times, their safety and exemption from disease and defeat have largely depended upon their *morale*,

* It has been seen that the potato can be preserved long, comparatively, in this state.

and under no circumstances are mental influences of greater importance than in the prevention and cure of scurvy.

I have now the honor to report upon points indicated in the communication from the Surgeon General's Office, of March 23, 1859, and in the order in which they occur in that paper:

I. "The kind of buildings occupied by the troops at Laramie, &c." These are substantia , but, in my opinion, too small. *For the better information of the department, the following plans are given, as they will show at a glance the dimensions of the rooms. The quarters were cleaned by scrubbing with a moderate supply of water, and generally once a week. No provision is made for ventilation, except in the adobe buildings, which have the windows arranged so as to admit air at the top if desired. These were, however, seldom or never opened, and only, perhaps, a window occasionally, in fine warm weather, so that the ventilation practically amounted to nothing.

II. "The manner of cooking, &c." This was by cooks detailed in turn from their companies, entirely ignorant of M. Soyer and his principles. The fresh beef was always boiled and never cooked otherwise, as far as I have been able to ascertain. The desiccated vegetables were first soaked in cold water and then boiled, whether slowly or not, I cannot ascertain.

III. "The duties of the troops" were the usual duties of the soldier, guard, police, and when the weather permitted, drill. The following official statement from the Adjutant's office will show the average period of guard duty for each soldier, and the length of time on post:

Statement of the number of guards performed by each private of the companies of the fourth artillery stationed at Fort Laramie, Nebraska Territory, from the 1st of September, 1858, to the 31st May, 1859.

Year.	Months.	Average number of men for duty each day during the month.	Average strength of the guard.	Average number of guards performed by each man during the month.	Number of hours on post during the tour of guard. (24 hours.)*	Average number of nights in bed to each man.
1858	September	64	11	5	8	5
	October	64	14	6	8	4
	November	59	14	7	8	3
	December	45	14	9	8	2
1859	January	50	14	8	8	3
	February	64	14	7	8	3
	March	67	14	6	8	4
	April	84	14	5	8	5
	May	138	18	4	8	6

* Each relief of the guard remained two hours on post and four off.

H. A. HASCALL,
Second Lieutenant Fourth Artillery, Post Adjutant.

I am unable to state whether coffee was served habitually to the guard at night.

IV. "The duties of the quartermaster's men" were such as are usual in a quartermaster's depot. Some of the men were employed in the carpenter's shop and in the blacksmith's shop, others as teamsters and herders. All were well protected from the weather, and none liable to injury from excess of fatigue. They had quarters in garrison, not as well furnished as those of the soldiers, but affording adequate shelter. A large new building was erected for them in the course of the winter. Small parties may occasionally have been in tents while on temporary

*Plans omitted.

duties, such as hauling wood or hay, though I am not aware of the fact. Their position with respect to shelter was no worse than that of the soldiers, while it was much better as regards their food and duties. They not only had their rations and quarters, but, their pay being much better than that of the soldier, they were enabled to avail themselves of other diet which could be purchased; and I am informed by the sutler that they bought largely and habitually of fresh can fruits, oysters, and other luxuries.

They had a Mormon woman to cook for their mess a great part of the time. Their clothing was good, though albeit not of the most fashionable cut. In the matter of exercise they had decidedly, in my opinion, the advantage over the soldiers. I never observed that any of them seemed likely to injure themselves by overwork; and the more favorable nature of their employment as to mental influences I have already commented upon. The greatest and most overbalancing point in their favor in comparing their circumstances with those of soldier's is found in their exemption from guard or any duty at night. Good, wholesome, unbroken nocturnal rest, with better pay, better food, and practically as good clothing and quarters make the sum of circumstances in their favor, circumstances all tending to prevent or retard the development of scorbutic disease. It has already been observed that later towards spring a very few cases occurred amongst the quartermaster's men.

During the past quarter nothing new as to the character of the disease has been observed, and the same measures and treatment for its prevention and cure were adopted as hitherto. There is one point in the history of scurvy this winter, however, of interest. It is, that the disease was entirely confined to the two companies (D and F) of second dragoons, while the infantry entirely escaped.

These two dragoon companies suffered greatly from scurvy last winter, the one at Fort Bridger and the other at this post, and have had no further benefit from fresh vegetables than the wild onions could afford.

The infantry came here in good *vegetable* health, having had the benefit of fine gardens at Fort Randall, so that their previous good health, together with the means adopted in the fall and through the winter, have been sufficient to repress, thus far, the development of scorbutic disease.

The troops have not been so crowded as in last winter—F company, second dragoons, occupying a new set of quarters—and the guard duty this winter has been lighter as to the period of time on post, the sentinels having been relieved every half hour in severe weather at night, and when the mercury was much below zero the sentinels were taken off entirely and patrols substituted.

In the third quarter of 1859 I recommended to the commanding officer that the companies should take daily the cactus juice, prepared as in hospital. And to obviate the difficulty and impossibility of getting the men (as was the case the autumn before) to take the cactus juice, I recommended that *whisky* should be given with it, literally, as a *placebo*. The cactus juice thus *went down* in more senses than one, and to this early supply of fresh vegetable matter I ascribe the immunity of the infantry, their previous good health largely assisting to prevent the development of the disease. In the case of the dragoons the scorbutic tendency was too strongly pronounced to be repressed. It required a more certain antiscorbutic. Potatoes would have afforded adequate means, I believe from experience, for the preservation of these companies from scorbutic disease.

During the past quarter the cases in hospital have been treated entirely with the wild cress given at meal times as a salad, and by half a tumbler full of cactus juice, flavored with citric acid and sugar. Whisky was added when it could be obtained without making a draft upon the hospital liquors.

The cases are all convalescent, and unless the supply of cress fails, the sick report bids fair soon to be nearly a blank.

The companies have had every week also a supply of the above fresh vegetable matter issued to them.

But there is difficulty to be apprehended from the probable failure of this supply, as it is even now obtained with difficulty. Last year I did not commence using the cress until the middle of winter, and the supply gave out before the onions came.

And in this connection, before concluding, I am led to a consideration of the communication of the Acting Commissary General of Subsistence in his letter to the Surgeon General, dated February 10, 1859, wherein he regrets that recourse was not had earlier in the autumn (of 1858) to the cactus and wild celery.

An acquaintance with the resources of this post as to the supply of this vegetable matter will show this to have been impracticable. It was impossible to get the companies, as such, to use the cactus juice. I had no power to control this matter in the company, and all I could do was to administer it when the men became sick and came on my report. It was then only a remedy, not a preventive. And this year it was only practicable to get the men in their companies, not on the sick report, to take the cactus juice when mixed with whisky. Unfortunately the whisky gave out, and so yielding up the cactus except for hospital, I commenced upon the cress, or celery as it is locally called, which I had held in reserve for fear that there would not be enough fresh vegetable matter to last until spring.

Now the celery was exhausted last year before spring, when I did not commence using it until about Christmas, and *this* winter being compelled to use it earlier, the supply is reported to be nearly exhausted; and I fear that although now my sick list is rapidly decreasing, before the onions can be had in the spring, scurvy will again increase, and will probably not be confined to the dragoons, but may extend to the infantry. Now had we a full supply of potatoes for winter use, I believe that my sick report would exhibit a very happy exoneration from scorbutic disease, and would show but few other cases, as the climate being naturally very healthy, and the scorbutic condition removed, the men would be seldom sick.

It would seem, at least so it appears to me, that it would be less expensive, and indeed better policy, to afford to frontier posts, such as this, a sufficient supply of such an undoubted antiscorbutic as is the potato, when it is taken into consideration that, being in the heart of an Indian country, the troops at such a post are liable any year to engage in expeditions against the Indians. Now by just so much as they are affected with a scorbutic condition throughout the winter, will they be less able to do efficient service. They are liable, I believe, even in the summer war-path, to have scurvy developed if their physique has been impaired during the winter from this cause, and the difficulty in obtaining vegetable food in the wilderness remaining about the same as in winter. Thus an expedition can be hampered with a large sick report, and for the want of a thousand or two bushels of potatoes may be shorn of the best results, when, perhaps, thousands of dollars may have otherwise been expended in preparing it. I do not mean to say that scurvy results from a want of potatoes only, or that nothing else than potatoes will prevent and cure scurvy; but I desire to be understood as meaning that scurvy results primarily from the imperfect supply of fresh vegetable matter to the human system, although developing conditions may be necessary to establish the disease; and the best, the most reliable, and eventually the *cheapest* form in which to obtain this vegetable matter, is the potato.

Towards the latter part of last October, being on detached service at Fort Kearny, I purchased and sent up for my family several bushels (at $1 50 per bushel) of potatoes from the market wagons which were frequently coming into that post with potatoes, apples, onions, and other vegetables. These potatoes, without the loss of a single potato from freezing or otherwise, reached Fort Laramie very early in November, being on the road at a time when the cold was so severe that the Platte was frozen over, as I found it when I crossed it. Potatoes also purchased and sent to officers and some by the sutler were transported at the same time from

Kearny in an *ox-train*, and they reached Fort Laramie in good condition, and with only a few of the outside ones frosted.

In conclusion, I would respectfully remark, that I hold the proposition to be true that scurvy results primarily from imperfect supply and ratio of supply of the three kinds of material for the body, azotized, non-nitrogenous, and earthy—the *point de départ* being the want of fresh vegetable matter; I believe, also, that the greatest developing cause, in the case of the soldier, is *guard duty at night*.

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN THE

NORTHERN DIVISION.

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG

CLASSES OF DISEASES.		FIRST QUARTER												TOTAL.	
	YEARS	1854		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	3,927.		90.		87.		96.		142.		151.		4,493.	
	SPECIFIC DISEASES	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers.	Febris continua continua	14	..	..	..	..	..	..	..	..	..	..	..	14	..
	Febris inter quotidiana	18	..	..	..	..	..	5	..	..	..	..	..	23	..
	Febris intermittens tertiana	45	..	..	..	..	..	35	..	..	..	..	..	80	..
	Febris intermittens quartana	1	..	..	..	..	..	7	..	1	..	..	..	9	..
	Febris remittens	39	..	..	..	..	..	..	..	..	..	..	..	39	..
	Febris typhus et typhoides	3	1	..	..	..	..	..	..	..	..	..	..	3	1
	Febris typhus icterodes	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eruptive fevers.	Erysipelas	3	..	..	..	..	..	..	..	..	..	..	..	3	..
	Rubeola	1	..	..	..	..	..	..	..	..	..	..	..	1	..
	Scarlatina	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Varicella	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Variolodes	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cholera Asiatica	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the organs connected with the digestive system.	Diarrhœa	81	2	..	..	1	..	3	..	2	..	1	..	91	2
	Dysenteria acuta	24	..	..	..	..	..	1	..	2	..	1	..	28	..
	Dysenteria chronica	15	..	..	..	..	..	..	..	..	..	..	..	15	..
	Enteritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hepatitis acuta	1	..	..	..	..	..	..	..	..	..	..	..	1	..
	Hepatitis chronica	1	..	..	..	..	..	..	..	..	..	..	..	1	..
	Obstipatio	19	..	2	..	1	..	1	..	3	..	1	..	28	..
	All other diseases	84	..	..	..	1	..	2	..	2	..	5	..	94	..
Diseases of the respiratory system.	Bronchitis, acuta et chronica	12	..	1	..	..	..	3	..	1	..	..	..	17	..
	Catarrhus	351	1	1	..	6	..	7	..	6	..	15	..	386	1
	Phthisis pulmonalis	7	..	1	1	..	..	..	..	1	..	..	..	9	1
	Pleuritis	33	1	..	..	1	..	..	..	..	..	3	..	39	1
	Pneumonia	18	..	..	..	..	..	..	..	1	..	..	..	19	..
	All other diseases	9	1	..	..	..	..	..	..	..	..	..	..	10	1
Diseases of the brain and nervous system.	Cephalalgia	17	..	1	..	..	..	..	..	..	..	..	..	18	..
	Delirium tremens	..	..	..	..	..	..	..	..	..	..	..	..	7	..
	Epilepsia	13	..	..	..	..	..	..	..	..	..	..	..	13	..
	Neuralgia	2	..	..	..	..	..	..	..	..	..	..	..	2	..
	All other diseases	13	1	..	..	..	..	..	..	..	..	..	..	13	1
Diseases of the urinary and genital organs.	Gonorrhœa	31	..	1	..	2	..	1	..	..	..	1	..	36	..
	Stricture urethræ	2	..	..	..	..	..	..	..	1	..	..	..	3	..
	Syphilis primitiva	15	..	..	..	..	..	..	..	..	..	2	..	17	..
	Syphilis consecutiva	17	..	..	..	..	..	..	..	..	..	..	..	17	..
	All other diseases	7	..	..	..	..	..	1	..	..	..	2	..	10	..
Diseases of the serous and exhalent vessels.	Ascites	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	All other diseases	1	..	..	..	..	..	..	..	..	..	..	..	1	..
Diseases of the fibrous and muscular structures.	Pertussis	5	..	1	..	..	..	..	..	..	..	..	..	1	..
	Pleurodyne	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rheumatismus	62	..	1	..	..	..	..	..	1	..	3	..	72	..
	Fistula	4	..	..	..	..	..	..	..	..	..	..	..	4	..
Abscesses and ulcers.	Phlegmon et abscessus	61	..	3	..	3	..	2	..	1	..	3	..	75	..
	Ulcus	9	..	1	..	..	..	..	..	2	..	2	..	14	..
	Anabrosis	12	..	..	..	..	..	2	..	..	..	2	..	16	..
Wounds and injuries.	Amputatio	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Contusio	119	..	..	..	1	..	..	..	9	..	3	..	132	..
	Fractura	10	..	..	..	..	..	..	..	..	..	..	..	10	..
	Luxatio	8	..	..	..	..	..	..	..	2	..	..	..	10	..
	Punctio	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Subluxatio	34	..	..	..	1	..	3	..	1	..	..	..	39	..
	Vulnus incisum	48	..	2	..	..	..	..	..	2	..	..	..	52	..
	Vulnus laceratum	16	..	..	..	..	..	3	..	..	..	2	..	21	..
	Vulnus punctum	6	..	1	..	..	..	..	..	..	..	..	..	7	1
	Vulnus sclopeticum	3	..	..	..	..	..	..	..	..	..	..	..	3	..
	Detecta	5	..	..	..	..	..	..	..	..	..	..	..	5	..
Miscellaneous.	Ebrietas	37	1	1	..	..	..	..	..	1	..	..	..	49	1
	Hæmorrhois	10	..	1	..	1	..	..	..	..	..	..	..	12	..
	Hernia	3	..	..	..	..	..	..	..	..	..	..	..	3	..
	Morbi Cutis	13	..	..	..	..	..	..	..	..	..	..	..	14	..
	Ophthalmia	26	..	..	..	1	..	..	..	1	..	..	..	27	..
	Scorbutus	..	..	..	..	..	..	..	..	1	..	..	..	1	..
	Steatoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	All other diseases	127	1	1	..	..	..	1	..	..	..	..	..	134	1
	Total	1,756	11	24	1	24	..	77	..	54	..	46	..	1,982	14

THE TROOPS AT POSTS IN THE NORTH ATLANTIC REGION.—COAST OF NEW ENGLAND.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	4,096.		84.		84.		133.		111.		118.		1,655.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	10												10	
	Febris inter. quotidiana	32						7		2		1		42	
	Febris intermittens tertiana	70						24				2		96	
	Febris intermittens quartana	5												5	
	Febris remittens	31		1										32	
	Febris typhus et typhoides	8								1				9	
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	3												3	
	Rubeola														
	Scarlatina														
	Variola		1												1
	Varicloides														
Diseases of the organs connected with the digestive system	Cholera Asiatica														
	Diarrhœa	94	1			4		7						105	1
	Dysenteria acuta	32								1		1		34	
	Dysenteria chronica	13						2						15	
	Enteritis											1		1	
	Hepatitis acuta	1												1	
	Hepatitis chronica	4												4	
	Obstipatio	30		5		4		5		3		1		48	
	All other diseases	119		1		2		8		1		1		132	
Diseases of the respiratory system	Bronchitis, acuta et chronica	16				2		1		3				22	
	Catarrhus	251		2		5		8		2		4		274	
	Phthisis pulmonalis	6	2											6	2
	Pleuritis	30				1		2				1		34	
	Pneumonia	14												14	
	All other diseases	12				2								14	
Diseases of the brain and nervous system	Cephalalgia	6				1		2						9	
	Delirium tremens	17												17	
	Epilepsia	15										1		16	
	Neuralgia	4												4	
	All other diseases	20												20	
Diseases of the urinary and genital organs	Gonorrhœa	47				1		5		2				55	
	Stricture urethræ	1								3				4	
	Syphilis primitiva	11		1		1				1				14	
	Syphilis consecutiva	10												10	
	All other diseases	12		1				1		2		1		17	
Diseases of the serous and exhalent vessels	Ascites														
	All other diseases	4	1											4	1
Diseases of the fibrous and muscular structures	Pemio	1												1	
	Podagra	5												5	
	Rheumatismus	90		3		3		2		4		3		105	
Abscesses and ulcers	Fistula	1												1	
	Phlegmon et abscessus	131		3				3		8		6		151	
	Ulcus	18						1		1				20	
Wounds and injuries	Ambustio	8										2		10	
	Amputatio														
	Contusio	129		1				3		11		3		14	
	Fractura	10		1						1				12	
	Luxatio	6												6	
	Punctio														
	Sub-luxatio	51				2		4		1		1		59	
	Vulnus incisum	41												41	
	Vulnus lacceratum	19				2		6		3		1		31	
	Vulnus punctum	8		1										9	
	Vulnus sclopeticum							1		1				2	
Miscellaneous	Debilitas	5						1						6	
	Ebrietas	12		1		2						1		16	
	Hæmorrhois	11		1						1				13	
	Hernia	4								1		1		6	
	Morbi cutis	4												4	
	Ophthalmia	43						1		1		1		46	
	Scorbutus	1						1						2	
	Suicidium											1	1	1	1
	All other diseases	215	4	1		1	1	3		3		2	1	225	6
	Total	1,774	9	23		33	1	98		57		38	2	2,023	12

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG

CLASSES OF DISEASES.		THIRD QUARTER.											
	Years	1839 to 1854.		1855.		1856.		1857.		1858.		[illegible]	Totals.
	Mean strength	4,0[illegible]		70.		89.		143.		141.		141.	4,630.
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases. Died.	Cases.	Died.
Fevers	Febris continua communis	10											10	
	Febris intermittens quotidiana	23						1					24	
	Febris intermittens tertiana.	36						11				3	50	
	Febris intermittens quartana	3											3	
	Febris remittens	15						2		1			18	
	Febris typhoides et typhodes	1		1									2	
	Febris typhus et typhoides													
	Erysipelas	4											4	
Eruptive fevers	Rubeola													
	Scarlatina													
	Varicella													
	Varioloide													
	Cholera Asiatica													
Diseases of the organs connected with the digestive system.	Diarrhœa	265		9		9		8		6		12	309	
	Dysenteria acuta	171	1	1		1		7				3	187	1
	Dysenteria chronica	12											12	
	Enteritis	1	1										1	1
	Hepatitis acuta													
	Hepatitis chronica	3											3	
	Obstipatio	67		4		2		5		4			82	
	All other diseases	236	1	4				5		6		7	257	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	5						1		1			7	
	Catarrhus	264				1		20				7	292	
	Phthisis pulmonalis	1	2										1	2
	Pleuritis	21								2			23	
	Pneumonia	1						2					6	
	All other diseases	11											11	
Diseases of the brain and nervous system.	Cephalalgia	21											21	
	Delirium tremens	24								1			30	
	Epilepsia	11										1	12	
	Neuralgia	3											3	
	All other diseases	10	1			1				1		1	13	1
Diseases of the urinary and genital organs.	Gonorrhœa	34		2		1		3		2			41	
	Structura urethræ					2				2		1	5	
	Syphilis primitiva	21											21	
	Syphilis consecutiva	11											11	
	All other diseases	23				1		1		5		1	31	
Diseases of the serous and exhalent vessels.	Ascites	1											1	
	All other diseases		1											1
Diseases of the fibrous and muscular structures.	Perino													
	Podagra	1											1	
	Rheumatismus	83		5		2		5		3		3	101	
	Fistula	3											3	
Abscesses and ulcers	Phlegmone et abscessus	134		6		2		1		2		3	148	
	Ulcus	19										3	22	
	Ambustio	8										3	11	
	Amputatio	3											3	
Wounds and injuries	Contusio	149	1	1		4		6		7		11	178	1
	Fractura	17		1		1		1				1	21	
	Luxatio	8											8	
	Punctio													
	Submersio	45				2		4				2	53	
	Vulnus incisum	49				1		1		2		1	54	
	Vulnus laceratum	13				1		2				2	18	
	Vulnus punctum	7		1				2					10	
	Vulnus sclopeticum	2											2	
Miscellaneous	Debilitas	13											13	
	Ebrietas	45		2		1				1		3	52	
	Hæmorrhois	16		1		1		4				1	23	
	Hernia	2										1	3	
	Morbi cutis	2											2	
	Ophthalmia	49		1						2			52	
	Scorbutus													
	Suicidium													
	All other diseases	212	2	3				6		1			222	2
	Total	2,203	10	12		29		101		49		70	2,494	10

THE TROOPS AT POSTS IN THE NORTH ATLANTIC REGION.—COAST OF NEW ENGLAND.

CLASSES OF DISEASES.		FOURTH QUARTER.											
	YEARS	1853 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	3,794.		91.				130.		150.		143.		4,308.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	8												8	
	Febris inter. quotidiana	26		1										27	
	Febris intermittens tertiana	44												44	
	Febris intermittens quartana	2												2	
	Febris remittens	2		1				1						4	
	Febris typhus et typhoides	5	1	1										6	1
	Febris typhus reterodes														
Eruptive fevers	Erysipelas	7												7	
	Rubeola														
	Scarlatina														
	Variola														
	Varioloides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	69						7		2		3		81	
	Dysenteria acuta	53						1		3				57	
	Dysenteria chronica	7												7	
	Enteritis														
	Hepatitis acuta	1												1	
	Hepatitis chronica														
	Obstipatio	27		2				1		1				31	
	All other diseases	118	3					1		2		1		122	3
Diseases of the respiratory system.	Bronchitis, acuta et chronica	16								1				17	
	Catarrhus	228						27		12		4		271	
	Phthisis pulmonalis	5	1											5	1
	Pleuritis	23												23	
	Pneumonia	8						1				1		10	
	All other diseases	8												8	
Diseases of the brain and nervous system.	Cephalalgia	6												6	
	Delirium tremens	3										1		4	
	Epilepsia	12						1		1				14	
	Neuralgia	6												6	
	All other diseases	18												18	
Diseases of the urinary and genital organs.	Gonorrhœa	26		2				2		1				31	
	Stricture urethræ											1		1	
	Syphilis primitiva	16						3		2				21	
	Syphilis consecutiva	6												6	
	All other diseases	13						1						14	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases	1												1	
Diseases of the fibrous and muscular structures.	Perino	1												1	
	Podagra	2												2	
	Rheumatismus	103						2		2		1		108	
	Fistula	2												2	
Abscesses and ulcers	Phlegmon et abscessus	74		3				2		2		2		83	
	Ulcus	13						2				2		17	
	Ambustio	9						1						10	
	Amputatio														
Wounds and injuries	Contusio	108		4				14		7		2		135	
	Fractura	10								1				11	
	Luxatio	1												1	
	Punctio	1												1	
	Sub luxatio	34		1				1						36	
	Vulnus incisum	49	1	1										50	1
	Vulnus laceratum	16		3						2		1		22	
	Vulnus punctum	3		1										4	
	Vulnus sclopeticum	3												3	
Miscellaneous	Debilitas	7												7	
	Ebrietas	29										3		32	
	Hæmorrhois	14												14	
	Hernia	5												5	
	Morbi cutis	2												2	
	Ophthalmia	29		2										31	
	Scorbutus	1												1	
	Suicidium														
	All other diseases	141	1	1										142	1
	Total	1,421	7	23				68		39		22		1,573	7

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG

CLASSES OF DISEASES.		FIRST QUARTER													
	YEARS	1854 to 1854		1855.		1856.		1857.		1858.		1859.		Total	
	MEAN STRENGTH	8,896.		668.		654.		[illegible]		7[illegible]6.		7[illegible]9.		[illegible]51.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	1				2				3				9	
	Febris inter quotidiana	69		15		4		9		4		1		102	
	Febris intermittens tertiana	229		3		9		63		11		13		351	
	Febris intermittens quartana	4		5				2		1				12	
	Febris remittens	5												37	
	Febris typhus et typhoides	9	9	6	2									15	7
	Febris typhus reticulosa														
Eruptive fevers	Erysipelas	14	3	1				1				1		19	1
	Rubeola	3		2				1						6	
	Scarlatina	1												1	
	Variola	15	3	1						2		5		23	3
	Varicella	7		1										8	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system	Diarrhœa	376	7	43		19		37		44		11		28	7
	Dysenteria acuta	17	1	6		3	1	11	1	5		1		79	3
	Dysenteria chronica	3	1		1			2						5	2
	Enteritis	1												1	
	Hepatitis acuta	3												3	
	Hepatitis chronica		1												1
	Obstipatio	189		9		30		15		28		23		294	
	All other diseases	341		12	2	20		21		10		6		415	2
Diseases of the respiratory system	Bronchitis acuta et chronica	23	1	25		61		19		18		5		154	1
	Catarrhus	1,700		144		101		60		62		63		2,136	
	Phthisis pulmonalis	9	8					1	1	1		1	1	12	10
	Pleuritis	41	2	6		2								49	2
	Pneumonia	59	7	10		2		3				6		71	7
	All other diseases	12				1		1						14	
Diseases of the brain and nervous system	Cephalalgia	10										7		17	
	Delirium tremens	10	1			3		1				2		16	1
	Epilepsia	22		2		2		2		3	1	1		32	1
	Neuralgia	4		1										5	
	All other diseases	25	3	2		3				1		1		32	3
Diseases of the urinary and genital organs	Gonorrhœa	193		22		18		20		21		16		290	
	Stricture urethræ	5		1		2		1		1				10	
	Syphilis primitiva	152		7		19		17		15		10		220	
	Syphilis consecutiva	28				3				1		8		42	
	All other diseases	47		2		7		1		3		2		62	
Diseases of the serous and exhalent vessels	Ascites		2												2
	All other diseases	1												1	
Diseases of the fibrous and muscular structures	Podagra	33		1				13	1			2		49	1
	Rheumatismus	194	1	12		11		27		22		26		292	1
	Fistula	8							1					8	1
Abscesses and ulcers	Phlegmone et abscessus	140		30		44		21		41		28		304	
	Ulcus	115		4		14		7		3		6		149	
	Ambustio	16				4		1				5		26	
Wounds and injuries	Amputatio														
	Contusio	173		12		20		19	1	11		18		253	1
	Fractura	13		1						1				15	
	Luxatio	4												6	
	Punctio														
	Subluxatio	71		4		13		9		11		7		115	
	Vulnus contusum	57						3				3		63	
	Vulnus laceratum	6		1				2				3		12	
	Vulnus punctum	15		2		1		4		1		2		23	
	Vulnus sclopeticum	2												2	
Misc. Paneau	Delirium	17		7		1		11		4		4		44	
	Ebrietas	34		3		3				3		3		66	
	Hæmorrhois	20				1		1		2		1		43	
	Hernia	16		1				1				1		19	
	Morbi cutis	17		1		13				18		12		61	
	Ophthalmia	115		3		3		5		6		8		140	
	Scorbutus	3												3	
	Suicidium														
	All other diseases	1,282	6	12		17		19		19		28		1,377	6
	Total	6,076	50	422	5	487	1	439	5	376	1	346	1	8,146	63

THE TROOPS AT POSTS IN THE NORTH ATLANTIC REGION.—HARBOR OF NEW YORK.

SECOND QUARTER.

CLASSES OF DISEASES.		1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	YEARS														
	MEAN STRENGTH	8,986.		903.		659.		627.		840.		615.		12,630.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	10	.....	36	.....	.....	.....	5	1	2	.....	1	.....	54	1
	Febris inter. quotidiana	122	.....	10	.....	23	.....	6	.....	19	.....	5	.....	185	.....
	Febris intermittens tertiana	342	.....	13	.....	57	.....	57	.....	28	.....	21	.....	519	.....
	Febris intermittens quartana	19	.....	.....	.....	.....	.....	1	.....	.....	.....	4	.....	23	.....
	Febris remittens	42	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42	2
	Febris typhus et typhoides	11	2	3	2	.....	.....	.....	.....	1	.....	.....	.....	15	4
	Febris typhus heterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	16	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	17	.....
	Rubeola	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	.....
	Scarlatina	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Variola	3	1	1	.....	.....	.....	.....	.....	5	.....	3	.....	12	1
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1
	Diarrhœa	692	.....	67	.....	65	.....	32	.....	45	.....	12	.....	913	.....
	Dysenteria acuta	15	1	9	.....	.....	.....	8	.....	3	.....	1	.....	66	1
	Dysenteria chronica	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	1
	Enteritis	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Hepatitis acuta	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1
	Hepatitis chronica	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Obstipatio	367	1	32	.....	88	.....	24	.....	23	.....	13	.....	547	1
	All other diseases	357	.....	8	.....	21	.....	12	.....	16	.....	11	.....	425	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	62	.....	16	1	13	.....	15	.....	12	.....	4	.....	122	1
	Catarrhus	1,100	.....	61	.....	79	.....	48	.....	26	.....	19	.....	1,333	.....
	Phthisis pulmonalis	15	8	.....	.....	.....	.....	.....	.....	2	.....	1	.....	18	8
	Pleuritis	18	1	4	.....	2	.....	.....	.....	.....	.....	.....	.....	24	1
	Pneumonia	20	1	10	1	1	1	3	.....	3	.....	8	1	46	5
	All other diseases	14	2	.....	.....	1	.....	.....	.....	.....	.....	1	.....	16	2
Diseases of the brain and nervous system.	Cephalalgia	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	25	.....
	Delirium tremens	7	2	2	.....	.....	.....	.....	.....	1	.....	.....	.....	10	2
	Epilepsia	26	.....	4	.....	4	.....	.....	.....	2	.....	.....	.....	36	.....
	Neuralgia	2	.....	3	.....	1	.....	1	.....	.....	.....	1	.....	8	.....
	All other diseases	24	1	.....	.....	1	.....	.....	.....	4	.....	.....	.....	29	4
Diseases of the urinary and genital organs.	Gonorrhœa	302	.....	30	.....	20	.....	18	.....	17	.....	8	.....	300	.....
	Stricture urethræ	7	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	8	.....
	Syphilis primitiva	156	.....	17	.....	10	.....	8	.....	13	.....	13	.....	217	.....
	Syphilis consecutiva	23	.....	.....	.....	2	.....	4	.....	3	.....	6	.....	41	.....
	All other diseases	61	.....	4	.....	12	.....	8	.....	5	.....	5	.....	95	.....
Diseases of the serous and exhalent vessels.	Ascites	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	275	.....	20	.....	43	.....	17	.....	12	.....	11	.....	378	.....
Abscesses and ulcers	Fistula	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Phlegmon et abscessus	259	1	24	.....	32	.....	27	.....	36	.....	15	.....	394	1
	Ulcus	125	.....	2	.....	4	.....	6	.....	11	.....	4	.....	154	.....
Wounds and injuries	Ambustio	16	.....	.....	.....	1	.....	1	.....	3	.....	2	.....	23	.....
	Amputatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	204	.....	17	.....	10	.....	11	.....	12	.....	10	.....	264	.....
	Fractura	10	.....	.....	.....	3	.....	.....	.....	2	.....	.....	.....	15	.....
	Luxatio	10	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	12	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	127	.....	2	.....	14	.....	7	.....	14	.....	7	.....	171	.....
	Vulnus morsum	75	.....	6	.....	4	.....	7	.....	2	.....	1	.....	95	.....
	Vulnus laceratum	4	.....	.....	.....	.....	.....	2	.....	2	.....	4	.....	12	.....
	Vulnus punctum	8	.....	.....	.....	2	.....	1	.....	7	.....	2	.....	20	.....
	Vulnus sclopeticum	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Miscellaneous	Debilitas	67	.....	7	.....	1	.....	7	.....	12	.....	2	.....	99	.....
	Ebrietas	98	.....	1	.....	.....	.....	6	.....	.....	.....	.....	.....	105	.....
	Hæmorrhois	27	.....	.....	.....	3	.....	.....	.....	2	.....	3	.....	35	.....
	Hernia	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27	.....
	Morbi cutis	11	.....	10	.....	17	.....	16	.....	8	.....	3	.....	65	.....
	Ophthalmia	202	.....	9	.....	15	.....	8	.....	1	.....	2	.....	237	.....
	Scorbutus	42	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	44	.....
	Sinedium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	1,889	2	18	.....	67	.....	24	.....	15	.....	11	.....	2,024	2
	Total	7,274	35	452	4	628	1	394	1	371	1	213	1	9,332	43

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG

CLASSES OF DISEASES.		THIRD QUARTER													
	YEARS	1839 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	10,102.		857.		663.		503		771.		784		13,632.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases	Died.	Cases.	Died.	Cases	Died.	Cases.	Died.	Cases	Died.	Cases.	Died.
Fevers	Febris continua communis	12	.....	5	.....	.....	.....	1	.....	5	.....	2	.....	25	.....
	Febris inter. quotidiana	181	.....	61	.....	9	.....	15	.....	16	.....	8	.....	290	.....
	Febris intermittens tertiana	399	.....	55	.....	21	.....	89	.....	11	.....	17	.....	630	.....
	Febris intermittens quartana	73	.....	7	.....	6	.....	1	.....	.....	.....	.....	.....	87	.....
	Febris remittens	70	5	2	.....	1	.....	1	.....	.....	.....	.....	.....	79	5
	Febris typhus et typhoides	8	1	1	.....	.....	.....	.....	.....	2	.....	.....	.....	11	1
	Febris typhus icteroides	.....	.....	.....	.....	71	14	.....	.....	.....	.....	.....	.....	71	14
Eruptive fevers	Erysipelas	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
	Rubeola	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1
	Variolodes	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	71	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71	28
	Diarrhœa	3,293	5	276	.....	235	.....	53	.....	196	.....	81	.....	4,134	5
	Dysenteria acuta	471	7	36	1	57	.....	21	.....	11	.....	5	.....	595	8
	Dysenteria chronica	18	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	5
	Enteritis	2	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	4	.....
	Hepatitis acuta	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	566	.....	154	.....	57	.....	29	.....	14	.....	19	.....	839	.....
	All other diseases	430	.....	20	.....	31	.....	24	.....	7	.....	27	.....	539	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	10	1	23	.....	9	.....	26	.....	7	.....	1	.....	76	1
	Catarrhus	882	.....	51	.....	51	.....	62	.....	41	.....	15	.....	1,022	.....
	Phthisis Pulmonalis	24	8	4	.....	1	.....	1	1	2	1	.....	1	32	11
	Pleuritis	12	.....	1	.....	4	.....	.....	.....	.....	.....	.....	.....	17	.....
	Pneumonia	6	1	.....	.....	1	.....	1	.....	1	.....	1	.....	10	1
	All other diseases	10	2	2	.....	5	.....	1	.....	1	.....	3	.....	22	2
Diseases of the brain and nervous system.	Cephalalgia	28	.....	1	.....	1	.....	.....	.....	8	.....	2	.....	40	.....
	Delirium tremens	16	2	3	.....	.....	.....	1	.....	3	1	4	.....	27	3
	Epilepsy	19	1	4	.....	.....	.....	2	.....	9	.....	.....	.....	34	1
	Neuralgia	3	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	5	.....
	All other diseases	33	2	3	.....	1	.....	1	.....	.....	.....	1	1	39	3
Diseases of the urinary and genital organs.	Gonorrhœa	287	.....	24	.....	.....	.....	16	.....	22	.....	9	.....	368	.....
	Stricture urethræ	5	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Syphilis primitiva	211	.....	23	.....	13	.....	8	.....	6	.....	13	.....	274	.....
	Syphilis consecutiva	11	1	2	.....	18	.....	4	.....	3	.....	1	.....	42	1
	All other diseases	67	.....	8	.....	3	.....	3	.....	4	.....	4	.....	89	.....
Diseases of the serous and exhalent vessels.	Ascites	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Pemio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	283	.....	15	.....	24	.....	17	.....	19	.....	12	.....	361	.....
Abscesses and ulcers	Fistula	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Phlegmon et abscessus	319	.....	48	.....	34	.....	29	.....	32	.....	19	.....	482	.....
	Ulcus	123	.....	7	.....	21	.....	4	.....	3	.....	1	.....	159	.....
Wounds and injuries	Ambustio	18	.....	4	.....	.....	.....	.....	.....	2	.....	.....	.....	24	.....
	Amputatio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	266	.....	31	.....	28	.....	16	.....	18	.....	8	.....	367	.....
	Fractura	9	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	11	.....
	Luxatio	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	16	.....	10	.....	16	.....	1	.....	8	.....	11	.....	142	.....
	Vulnus incisum	110	.....	7	.....	7	.....	4	.....	1	.....	2	.....	131	.....
	Vulnus laceratum	4	.....	6	.....	1	.....	5	.....	10	.....	6	.....	32	.....
	Vulnus punctum	9	.....	3	.....	.....	.....	1	.....	9	.....	5	.....	27	.....
	Vulnus sclopeticum	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....
Miscellaneous	Debilitas	50	1	5	.....	9	.....	13	.....	6	.....	2	.....	85	1
	Electrus	105	.....	6	.....	4	.....	2	.....	3	.....	1	.....	119	.....
	Hemorrhois	48	.....	.....	.....	1	.....	3	.....	1	.....	1	.....	54	.....
	Hernia	19	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	21	.....
	Morbi cutis	21	.....	13	.....	21	.....	27	.....	6	.....	3	.....	91	.....
	Ophthalmia	221	.....	19	.....	8	.....	8	.....	6	.....	2	.....	255	.....
	Scorbutus	3	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	2,913	9	90	.....	45	1	29	.....	29	.....	10	.....	3,116	10
	Total	11805	80	1,054	1	816	15	559	1	464	2	299	2	14988	101

THE TROOPS AT POSTS IN THE NORTH ATLANTIC REGION.—HARBOR OF NEW YORK.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	9,353.		707.		570.		932.		1,007.		344.		12,913.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	5	.....	1	.....	1	.....	3	1	.....	.....	1	.....	11	1
	Febris inter. quotidiana	114	.....	43	.....	11	.....	7	.....	6	.....	2	.....	183	.....
	Febris intermittens tertiana	310	.....	45	.....	13	.....	56	.....	22	.....	10	.....	456	.....
	Febra intermittens quartana	.....	.....	14	.....	2	.....	.....	.....	3	.....	.....	.....	19	.....
	Febris remittens	65	3	.....	.....	.....	.....	.....	.....	.....	.....	1	1	66	4
	Febris typhus et typhoides	6	7	.....	.....	.....	.....	.....	.....	2	1	1	1	9	9
	Febris typhus heterodes	.....	.....	.....	.....	6	2	.....	.....	.....	.....	.....	.....	6	2
Eruptive fevers	Erysipelas	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	6	.....
	Rubeola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Scarlatina	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Variola	6	.....	1	1	.....	.....	.....	.....	1	.....	.....	.....	8	1
	Varioloides	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
	Cholera Asiatica	1	.....	.....	.....	.....	.....	10	5	.....	.....	.....	.....	11	5
Diseases of the organs connected with the digestive system.	Diarrhœa	806	6	78	.....	43	.....	59	.....	54	.....	26	.....	1,086	6
	Dysenteria acuta	207	4	3	.....	13	.....	17	.....	6	.....	3	.....	249	4
	Dysenteria chronica	11	2	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	2
	Enteritis	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Obstipatio	241	.....	64	.....	28	.....	19	.....	46	.....	13	.....	441	.....
	All other diseases	228	3	11	.....	5	.....	21	.....	4	.....	12	.....	284	3
Diseases of the respiratory system.	Bronchitis, acuta et chronica	22	1	13	.....	4	.....	18	.....	.....	.....	1	.....	58	1
	Catarrhus	1,185	1	78	.....	46	.....	99	.....	84	.....	20	.....	1,512	1
	Phthisis pulmonalis	8	11	1	.....	1	.....	.....	.....	1	.....	.....	.....	11	11
	Pleuritis	13	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	15	.....
	Pneumonia	13	1	1	.....	.....	.....	7	1	6	1	.....	.....	27	3
	All other diseases	16	.....	1	.....	4	.....	.....	.....	.....	.....	.....	.....	21	.....
Diseases of the brain and nervous system.	Cephalalgia	22	.....	2	.....	.....	.....	.....	.....	1	.....	1	.....	29	.....
	Delirium tremens	8	1	1	.....	1	.....	2	.....	4	.....	.....	.....	16	1
	Epilepsia	29	.....	.....	.....	.....	.....	2	.....	2	.....	.....	.....	33	.....
	Neuralgia	6	.....	4	.....	.....	.....	.....	.....	1	.....	.....	.....	11	.....
	All other diseases	18	3	2	.....	1	.....	1	1	.....	.....	1	.....	23	4
Diseases of the urinary and genital organs.	Gonorrhœa	203	.....	21	.....	15	.....	27	.....	31	.....	13	.....	310	.....
	Structura urethræ	6	.....	.....	.....	2	.....	1	.....	.....	.....	.....	.....	9	.....
	Syphilis primitiva	205	.....	21	.....	19	.....	15	.....	7	.....	11	.....	278	.....
	Syphilis consecutiva	19	.....	.....	.....	2	.....	2	.....	12	.....	3	.....	38	.....
	All other diseases	34	.....	4	.....	2	.....	3	.....	7	1	4	.....	54	1
Diseases of the serous and exhalent vessels.	Ascites	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1
	All other diseases	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Diseases of the fibrous and muscular structures.	Pernio	7	.....	.....	.....	7	.....	2	.....	1	.....	.....	.....	17	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	260	.....	11	.....	20	.....	23	.....	22	.....	11	.....	347	.....
Abscesses and ulcers	Fistula	4	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	7	.....
	Phlegmon et abscessus	146	.....	32	.....	19	.....	27	.....	27	.....	19	.....	270	.....
	Ulcus	107	.....	5	.....	2	.....	1	.....	5	.....	2	.....	122	.....
Wounds and injuries	Ambustio	19	.....	2	.....	.....	.....	.....	.....	2	.....	1	.....	24	.....
	Amputatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	214	.....	18	.....	13	.....	20	.....	20	.....	8	.....	293	.....
	Fractura	13	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	14	.....
	Luxatio	5	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	7	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Subluxatio	76	.....	12	.....	9	.....	12	.....	12	.....	16	.....	137	.....
	Vulnus morsum	53	.....	3	.....	3	.....	3	.....	.....	.....	2	.....	64	.....
	Vulnus laceratum	5	.....	3	.....	2	.....	.....	.....	3	.....	5	.....	18	.....
	Vulnus punctum	4	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	6	.....
	Vulnus sclopeticum	5	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	7	.....
Miscellaneous	Debilitas	25	.....	11	.....	13	.....	10	.....	8	.....	.....	.....	67	.....
	Ebrietas	61	1	7	.....	2	.....	3	.....	.....	.....	1	.....	74	1
	Hæmorrhois	26	.....	1	.....	4	.....	5	.....	.....	.....	1	.....	37	.....
	Hernia	10	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	12	.....
	Morbi cutis	19	.....	5	.....	26	.....	39	.....	6	.....	2	.....	97	.....
	Ophthalmia	112	.....	4	.....	11	.....	18	.....	9	.....	4	.....	158	.....
	Scorbutus	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	Suicidium	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1
	All other diseases	1,315	2	33	.....	16	.....	26	.....	17	.....	11	.....	1,418	2
	Total	6,317	47	566	1	375	2	614	9	436	3	210	2	8,518	64

No. 3.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER													
	Years	1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	6,855.		[illegible]		507.		7[illegible]		[illegible]		595.		9,615.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	71												71	
	Febris inter quotidiana	10												10	
	Febris intermittens tertiana	25		9		4		5		9		7		59	
	Febris intermittens quartana														
	Febris remittens	1												1	
	Febris typhus et typhoides	1	1							1				2	1
	Febris typhus heteroides														
Eruptive fevers	Erysipelas	3		1		1						1		6	
	Rubeola	4												4	
	Scarlatina	4								4				8	
	Varicella	2	1											2	1
	Variolodes	6												6	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	302		18		22		24		89		39		585	
	Dysenteria acuta	14		1		6								21	
	Dysenteria chronica	2				2								3	
	Enteritis	1												1	
	Hepatitis acuta	1												1	
	Hepatitis chronica														
	Obstipatio	194		3		10		5		4		5		221	
	All other diseases	624		30		60		84		85		44		927	
Diseases of the respiratory system.	Bronchitis, acuta et chronica														
	Catarrhus	1,967		216		305		220		135		153		2,996	
	Phthisis pulmonalis	2	2					2	2					4	4
	Pleuritis	17		1		3		3		5		1		30	
	Pneumonia	4	1	2										6	1
	All other diseases	23		21		3								47	
Diseases of the brain and nervous system.	Cephalalgia	1,186		34		50		36		78		63		1,436	
	Delirium tremens														
	Epilepsia	7												7	
	Neuralgia	8				3		5		5		4		25	
	All other diseases	12												12	
Diseases of the urinary and genital organs.	Gonorrhœa	15		3		2						1		21	
	Strictura urethræ	3												3	
	Syphilis primitiva	2				1				1		1		5	
	Syphilis consecutiva					1								1	
	All other diseases	10				4		2		1		3		20	
Diseases of the serous and exhalant vessels	Ascites														
	All other diseases														
Diseases of the fibrous and muscular structures.	Pemio	4						6						10	
	Podagra														
	Rheumatismus	201		8		17		16		19		13		274	
Abscesses and ulcers	Fistula							1						1	
	Phlegmone et abscessus	308		61		44		59		42		64		581	
	Ulcus	10								4				14	
Wounds and injuries	Ambustio	11				1		1		1		4		18	
	Amputatio	1												1	
	Contusio	489		36		50		57		71		76		779	
	Fractura	7		2						2				11	
	Luxatio	26				3				1				30	
	Punctio			1										1	
	Sub luxatio	178		12		13		13		9		3		228	
	Vulnus incisum	85		9		9		9		1		5		128	
	Vulnus laceratum	2						1		2				8	
	Vulnus punctum	7				2		3						12	
	Vulnus sclopeticum									1				1	
Miscellaneous	Debilitas	4				1				1				6	
	Ebrietas	1				3								4	
	Hæmorrhois	43				1		4				8		56	
	Hernia									1				1	
	Morbi cutis	16				6		3		7		4		36	
	Ophthalmia	96		6		3		16		13		14		148	
	Scorbutus														
	Suicidium														
	All other diseases	1,201	1	122		119		58		50		48		1,598	1
	Total	7,325	6	599		738		653	2	636		561		10489	8

AMONG THE CADETS AND TROOPS AT WEST POINT, NEW YORK.

SECOND QUARTER.

CLASSES OF DISEASES.	SPECIFIC DISEASES.	1850 to 1854. Cases	Died	1855. Cases	Died	1856. Cases	Died	1857. Cases	Died	1858. Cases	Died	1859. Cases	Died	Total. Cases	Died
	Years														
	Mean strength	6,565		447		494		448		417		477		8,848	
Fevers	Febris continua communis	90												90	
	Febris inter. quotidiana	8		2		2								12	
	Febris intermittens tertiana	157		22		13		13		8		5		218	
	Febris intermittens quartana			1										1	
	Febris remittens	8	1											8	1
	Febris typhus et typhoides	3		1						1				5	
	Febris typhus icterodes														
Eruptive fevers	Erysipelas			1		1								2	
	Rubeola	3				1								4	
	Scarlatina														
	Variola														
	Varriolondes	1												1	
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	465		20		18		15		55		37		590	
	Dysenteria acuta	18				1								19	
	Dysenteria chronica			1										1	
	Enteritis									1				1	
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	195		14		13		2		12		11		247	
	All other diseases	558		32	1	53		95		59		53		850	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica														
	Catarrhus	1,543		90		116		120		82		84		2,035	
	Phthisis pulmonalis	1	3					1	2			2		4	5
	Pleuritis	5		8		2				1		1		17	
	Pneumonia	4												4	
	All other diseases	62		1		1		1		1		3		69	
Diseases of the brain and nervous system.	Cephalalgia	1,304		39		45		51		58		54		1,551	
	Delirium tremens	1	1											1	1
	Epilepsia	9						1		1				11	
	Nemalgia	12		3		1		2		2		5		25	
	All other diseases	28	2			4		1				2		35	2
Diseases of the urinary and genital organs.	Gonorrhœa	19		6		4		2				1		32	
	Stricture urethræ	3												3	
	Syphilis primitiva	1										1		5	
	Syphilis consecutiva	1								1				2	
	All other diseases	10				1		2		1		1		15	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases	2												2	
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	201	1	26		19		21		7		15		289	1
Abscesses and ulcers	Fistula							1						1	
	Phlegmon et abscessus	395		72		41		46		36		49		639	
	Ulcus	42								5		2		49	
Wounds and injuries	Ambustio	12												12	
	Amputatio														
	Contusio	510		32		29		30		66		70		737	
	Fractura	4				1								5	
	Luxatio	27												27	
	Punctio														
	Sub luxatio	221		18		11		23		12		24		309	
	Vulnus incisum	151		7		11		15		5		3		192	
	Vulnus laceratum	8				1								9	
	Vulnus punctum	6				2		4		2		1		15	
	Vulnus sclopeticum	1												1	
Miscellaneous	Debilitas	34		2		5		4		1				46	
	Ebrietas	1												1	
	Hæmorrhois	52				3		5		5		9		74	
	Hernia	4		1				2						7	
	Morbi cutis	24		3		3		1		1		1		33	
	Ophthalmia	103		2		6		11		7		7		136	
	Scorbutus														
	Suicidium														
	All other diseases	1,316		135		80		56		78		44		1,709	
	Total	7,626	8	539	1	488		525	2	488		485		10151	11

No. 3.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER													
	Years	1854 to 1[illegible]54		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	7,033.		[illegible]		489.		47[illegible]		[illegible]		[illegible]		9,411	
	SPECIFIC DISEASES	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	111												111	
	Febris inter. quotidiana	11												11	
	Febris intermittens tertiana	249		22		17		12		13		9		325	
	Febris intermittens quartana	1												1	
	Febris remittens	15												15	
	Febris typhus et typhoides	1												1	
	Febris typhus ictteroides	1												1	
	Erysipelas	1	1			2								6	1
	Rubeola														
Eruptive fevers	Scarlatina														
	Varicella														
	Variola									2				2	
	Cholera Asiatica	5	3											5	3
	Diarrhœa	1,524	1	68		122		78		89		49		1,930	1
	Dysenteria acuta	144	4	2		5								151	4
Diseases of the organs connected with the digestive system.	Dysenteria chronica														
	Enteritis														
	Hepatitis acuta														
	Hepatitis chronica	1												1	
	Obstipatio	230		9		16		14		1		1		271	
	All other diseases	620		74		103		104		54		60		1,010	
Diseases of the respiratory system.	Bronchitis, acuta et chronica											1		1	
	Catarrhus	880		81		67		64		63		36		1,191	
	Phthisis pulmonalis	2	3	1		1								4	3
	Pleuritis			4				1		1				6	
	Pneumonia	1												1	
	All other diseases	60		1				3		5		1		70	
Diseases of the brain and nervous system.	Cephalalgia	845		82		46		57		56		30		1,067	
	Delirium tremens														
	Epilepsia	3				1								4	
	Neuralgia	4		1				3		3		2		13	
	All other diseases	25	2							3		4		32	2
Diseases of the urinary and genital organs.	Gonorrhœa	54		11		9		6		6		9		95	
	Stricturæ urethræ	3												3	
	Syphilis primativa	9				1				1		4		15	
	Syphilis consecutiva	3						1						4	
	All other diseases	12		4		2		1				2		21	
Diseases of the serous and exhalent vessels	Ascites	1												1	
	All other diseases	1												1	
Diseases of the fibrous and muscular structures.	Pertussis														
	Podagra														
	Rheumatismus	175		14		30		38		27		9		273	
	Fistula														
Abscesses and ulcers	Phlegmon et abscessus	362		71		48		45		37		29		592	
	Ulcus	30						3		1				43	
	Ambustio	11				1		2						14	
	Amputatio	1												1	
Wounds and injuries	Contusio	530		42		58		72		71		60		833	
	Fractura	3				1				1		1		6	
	Luxatio	17												17	
	Punctio														
	Sub luxatio	242		12		16		4		16		5		295	
	Vulnus incisum	139		12		4		8		5		4		172	
	Vulnus laceratum	91				1				12		1		108	
	Vulnus punctum	31				1		19		2				53	
	Vulnus sclopeticum	1												1	
Miscellaneous	Debilitas	60		4		5		3		1		2		78	
	Ebrietas	7		2										9	
	Hæmorrhois	42		2		3		13		4		7		71	
	Hernia	5		2		1		2						10	
	Morbi alvi	37		1		2				1		5		49	
	Ophthalmia	93		1		4		5		8		9		123	
	Scrofula														
	Spasmus														
	All other diseases	2,190	1	137		97		101		125		51		2,702	1
	Total	8,918	15	613		650		679		603		413		11856	15

AMONG THE CADETS AND TROOPS AT WEST POINT, NEW YORK.

FOURTH QUARTER.

CLASSES OF DISEASES.	YEARS	1853 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	7,149.		509.		509.		525.		523.		517.		9,725.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	95	1											95	1
	Febris inter. quotidiana	9												9	
	Febris intermittens tertiana	70		9		11		20		12		7		129	
	Febris intermittens quartana	7												7	
	Febris remittens	4												4	
	Febris typhus et typhoides	1		1										2	
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	6				2								8	
	Rubeola														
	Scarlatina	1												1	
	Variola	2												2	
	Variolodes	3												3	
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	597		65		45		60		58		69		894	
	Dysenteria acuta	11		2										13	
	Dysenteria chronica														
	Enteritis														
	Hepatitis acuta														
	Hepatitis chronica	1		1										2	
	Obstipatio	180		12		10		1		2		1		206	
	All other diseases	495		59		70		118		71		84		897	
Diseases of the respiratory system.	Bronchitis, acuta et chronica									1		1		2	
	Catarrhus	1,960		128		153		182		180		108		2,711	
	Phthisis pulmonalis	1					1		1	1				2	2
	Pleuritis	21		1		2		12		1				37	
	Pneumonia	1										1		2	
	All other diseases	45				1	1	1		1				48	1
Diseases of the brain and nervous system.	Cephalalgia	1,168		75		49		107		54		43		1,496	
	Delirium tremens														
	Epilepsia	7												7	
	Neuralgia	11		2				21		9		13		56	
	All other diseases	24		1				3		1		2	1	31	1
Diseases of the urinary and genital organs.	Gonorrhœa	18		2		5		1		1		2		32	
	Stricture urethræ	2												2	
	Syphilis primitiva	6				1						1		8	
	Syphilis consecutiva	4												4	
	All other diseases	15		1		1		3		1		2		23	
Diseases of the serous and exhalent vessels.	Ascites		1												1
	All other diseases	1												1	
Diseases of the fibrous and muscular structures.	Pelmo	1												1	
	Podagra														
	Rheumatismus	161		13		17		30		8		11		213	
Abscesses and ulcers	Fistula														
	Phlegmon et abscessus	378		32		43		51		60		50		614	
	Ulcus	4				1		7						12	
Wounds and injuries	Ambustio	21				1		3						25	
	Amputatio														
	Contusio	456		38		72		55		57		40		718	
	Fractura	4												4	
	Luxatio	8		1										9	
	Punctio														
	Sub luxatio	287		15		2		6		3		19		332	
	Vulnus incisum	110		18		4		5		4				141	
	Vulnus laceratum	44						3						47	
	Vulnus punctum	10				2		1		1		1		15	
	Vulnus sclopeticum	2												2	
Miscellaneous	Delibratio	17		3		1		2				1		24	
	Ebrietas	1		1										2	
	Hæmorrhois	26		3		1		5		3		7		44	
	Hernia	1												1	
	Morbi cutis	19		7		6		6		2		6		46	
	Ophthalmia	102		6		9		31		11		8		167	
	Scorbutus														
	Suicidium														
	All other diseases	1,422		144		79		72		60		45		1,822	
	Total	7,770	2	649		588	2	809	1	603		521	1	11,932	6

No. 4.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	Years	1854 and '54		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	10,999.		164.		243.						58.		11,464.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	45	1											45	1
	Febris inter. quotidiana	59												59	
	Febris intermittens tertiana	188		2										190	
	Febris intermittens quartana	15												15	
	Febris remittens	36	2											36	2
	Febris typhus et typhoides	8		1										9	
	Febris typhus et typhoides														
Eruptive fevers	Erysipelas	21	2	2		1								24	2
	Rubeola	1												1	
	Scarlatina	36										1		37	
	Variola	9	2											9	2
	Varicloide	1												4	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	304	4	11		4								319	4
	Dysenteria acuta	30												30	
	Dysenteria chronica	7												7	
	Enteritis	15	1											15	1
	Hepatitis acuta	1												1	
	Hepatitis chronica	5												5	
	Obstipatio	90		1		3						1		95	
	All other diseases	257	1	2		1						1		261	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	39	1			1								40	1
	Catarrhus	1,013		6		11						1		1,031	
	Phthisis pulmonalis	14	12											14	12
	Pleuritis	83	1											83	1
	Pneumonia	89	4	1		2								92	4
	All other diseases	16	1											16	1
Diseases of the brain and nervous system.	Cephalalgia	4		1										39	
	Delirium tremens	50	3	1								1		53	3
	Epilepsia	25												25	
	Neuralgia	25				1								26	
	All other diseases	10												10	
Diseases of the urinary and genital organs.	Gonorrhœa	211		1										212	
	Stricture urethræ	5												5	
	Syphilis primitiva	103				1								104	
	Syphilis consecutiva	25	1											25	1
	All other diseases	33												33	
Diseases of the serous and exalant vessels.	Ascites	1												1	
	All other diseases														
Diseases of the fibrous and muscular structures.	Pertussis	57		4		2								63	
	Podagra	2												2	
	Rheumatismus	293		5		6						3		307	
	Fistula	2												2	
Abscesses and ulcers	Phlegmone et abscessus	184		6		1						4		195	
	Ulcus	154		4		1								159	
Wounds and injuries	Ambustio	43		1		1								45	
	Amputatio	3												3	
	Contusio	325	2	3		2						1		331	2
	Fractura	24	1											24	1
	Luxatio	22												22	
	Punitio	14												14	
	Subluxatio	85		1		2								88	
	Vulnus incisum	178		3										181	
	Vulnus laceratum	36		3		2						2		43	
	Vulnus punctum	17										1		18	
	Vulnus sclopeticum	7												7	
	Debilitas														
Miscellaneous	Ebrietas	114	3	3		1						1		119	3
	Hæmorrhois	18		1								1		20	
	Hernia	12												12	
	Morbus cutaneus	43												43	
	Ophthalmia	9												98	
	Scorbutus														
	Tetanus														
	All other diseases	444	2	15		5						1		465	2
	Total	5,109	44	78		48						19		5,254	44

AMONG THE TROOPS AT POSTS IN THE REGION OF THE GREAT LAKES.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	10,949.		150.		134.		145.		68.		53.		11,499.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	86	1											86	1
	Febris inter. quotidiana	399	3	3		2		10		2		1		408	3
	Febris intermittens tertiana	541		1		3		3						548	
	Febris intermittens quartana	26												26	
	Febris remittens	75		1										76	
	Febris typhus et typhoides	5	1											5	1
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	23	1									1		24	1
	Rubeola	34						1						36	
	Scarlatina	4												4	
	Variola	1												1	
	Variolodes	5												5	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	1	1											1	1
	Diarrhœa	591	3	9		3		1		1		1		609	3
	Dysenteria acuta	45	1									1		46	1
	Dysenteria chronica	4	1											4	1
	Enteritis	7												7	
	Hepatitis acuta	3				1								4	
	Hepatitis chronica	5						1						6	
	Obstipatio	137		4		2		6				1		150	
	All other diseases	314	1	2		2		4				3		325	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	48		4						2				54	
	Catarrhus	1,061	1	15		3		8		1		3		1,091	1
	Phthisis pulmonalis	9	8					1				1		11	8
	Pleuritis	83												83	
	Pneumonia	35	4	1				1						37	4
	All other diseases	21	1					1						22	1
Diseases of the brain and nervous system.	Cephalalgia	85		2		3				1				92	
	Delirium tremens	53	2									1		54	2
	Epilepsia	34												34	
	Neuralgia	29				1		1						31	
	All other diseases	16				1								17	
Diseases of the urinary and genital organs.	Gonorrhœa	168						3				1		172	
	Strictura urethræ	8						1						9	
	Syphilis primitiva	83						1						84	
	Syphilis consecutiva	34												34	
	All other diseases	53	1	3				2						58	1
Diseases of the serous and exhalent vessels.	Ascites	2												2	
	All other diseases	3												3	
Diseases of the fibrous and muscular structures.	Perino	3		1										4	
	Podagra	3												3	
	Rheumatismus	329	1	5		4						1		339	1
Abscesses and ulcers	Fistula	8												8	
	Phlegmon et abscessus	197		4		3		1				1		206	
	Ulcus	148		2								1		151	
Wounds and injuries	Ambustio	30		1										31	
	Amputatio														
	Contusio	282		10		3		1						296	
	Fractura	18						1						19	
	Luxatio	10	1			3								13	1
	Punitio														
	Sub luxatio	107		3		2						3		115	
	Vulnus incisum	163		2		1								166	
	Vulnus laceratum	19		2		3		2		1				27	
	Vulnus punctum	18		1		1						1		21	
	Vulnus sclopeticum	9	1					1						10	1
Miscellaneous	Debilitas	14												14	
	Ebrietas	90	1	4		1		1				1		97	1
	Hemorrhois	42		1				1						44	
	Hernia	16												16	
	Morbi cutis	91		1										92	
	Ophthalmia	160		5		2								167	
	Scorbutus											1		1	
	Suicidium														
	All other diseases	543		12		4		3				1		563	
	Total	6,426	34	99		48		76		8		21		6,681	34

No. 4.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	9,681.		152.		137.				67.		52.		10,089.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	48	1				1							49	1
	Febris intermittens quotidiana	469		4										473	
	Febris intermittens tertiana	104				3				3				110	
	Febris intermittens quartana	28												28	
	Febris remittens	282	8											282	8
	Febris typhus et typhoides	13												13	
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	8												8	
	Rubeola	5												5	
	Scarlatina	1												1	
	Variola														
	Varicella	8												8	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	12	5											12	5
	Diarrhœa	1,017		18		7				2				1,044	
	Dysenteria acuta	116	2	1		1				2		3		126	2
	Dysenteria chronica	5												5	
	Enteritis	5								1				6	
	Hepatitis acuta	7												7	
	Hepatitis chronica	1												1	
	Obstipatio	150		1		2				2				155	
	All other diseases	309	1	7		6								322	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	24												24	
	Catarrhus	679		2		1				2		3		687	
	Phthisis pulmonalis	13	6		1									13	7
	Pleuritis	42												42	
	Pneumonia	21												21	
	All other diseases	10	1											10	1
Diseases of the brain and nervous system.	Cephalalgia	58		4		1								63	
	Delirium tremens	45												45	
	Epilepsia	16				1								17	
	Neuralgia	8				1								9	
	All other diseases	16				1				1				18	
Diseases of the urinary and genital organs.	Gonorrhœa	151		12								1		164	
	Stricture urethræ	2												2	
	Syphilis primitiva	89		1						1				91	
	Syphilis consecutiva	12	1											12	1
	All other diseases	30	1	3								1		34	1
Diseases of the serous and cellular textures	Ascites	1	1											1	1
	All other diseases	1												1	
Diseases of the fibrous and muscular structures.	Perno														
	Podagra	1												1	
	Rheumatismus	255		4		2								261	
	Fistula	4												4	
Abscesses and ulcers	Phlegmon et abscessus	183	1	6						4		2		195	1
	Ulcus	124		5		2				1				132	
	Ambustio	19				1								20	
	Amputatio	6												6	
Wounds and injuries	Contusio	287	1	5		7				7		1		307	1
	Fractura	10												10	
	Luxatio	9		1										10	
	Punitio	12												12	
	Sub-luxatio	115								2		1		118	
	Vulnus incisum	178		3		3						3		187	
	Vulnus laceratum	20		5										25	
	Vulnus punctum	18												18	
	Vulnus sclopeticum	9												9	
Miscellaneous	Debilitas	28										1		29	
	Ebrietas	80				3								83	
	Hæmorrhois	38				1								39	
	Hernia	16												16	
	Morbi cutis	66												66	
	Ophthalmia	104		2		5								111	
	Scorbutus														
	Suppuratio														
	All other diseases	437	2	4		7								448	2
	Total	6,135	31	91	1	56				28		16		6,326	33

AMONG THE TROOPS AT POSTS IN THE REGION OF THE GREAT LAKES.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	9,755.		119.						65.		60.		10,029.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	57		2										59	
	Febris inter. quotidiana	169		1								2		172	
	Febris intermittens tertiana	347												347	
	Febris intermittens quartana	16												16	
	Febris remittens	123	4											123	4
	Febris typhus et typhoides	7	1											7	1
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	8	1	1										9	1
	Rubeola														
	Scarlatina	7								1				8	
	Variola	1												1	
	Variolodes	6												6	
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	571	6	5						4				580	6
	Dysenteria acuta	84												84	
	Dysenteria chronica	8												8	
	Enteritis	3	1											3	1
	Hepatitis acuta														
	Hepatitis chronica	3												3	
	Obstipatio	106		1						3				110	
	All other diseases	294	4	7						2		8		311	4
Diseases of the respiratory system.	Bronchitis, acuta et chronica	35		1										36	
	Catarrhus	824		4						8		3		839	
	Phthisis pulmonalis	11	7											11	7
	Pleuritis	55	1							1				56	1
	Pneumonia	40	1											40	1
	All other diseases	16	1											16	1
Diseases of the brain and nervous system.	Cephalalgia	40								1				41	
	Delirium tremens	63	4	1										66	4
	Epilepsia	24										1		25	
	Neuralgia	15		1										16	
	All other diseases	26	1											26	1
Diseases of the urinary and genital organs.	Gonorrhœa	173								1				174	
	Stricture urethræ	5												5	
	Syphilis primitiva	92		1										93	
	Syphilis consecutiva	24										2		26	
	All other diseases	40		2						1				43	
Diseases of the serous and exhalent vessels.	Ascites	1												1	
	All other diseases	4												4	
Diseases of the fibrous and muscular structures.	Pernio	22												22	
	Podagra	1												1	
	Rheumatismus	266		3						7		2		278	
Abscesses and ulcers	Fistula	4												4	
	Phlegmon et abscessus	169		1						3		3		176	
	Ulcus	164		1										165	
Wounds and injuries	Ambustio	24												24	
	Amputatio	2												2	
	Contusio	254		3						2		1		260	
	Fractura	14	2											14	2
	Luxatio	6												6	
	Punctio	12												12	
	Subluxatio	65		1						1		3		70	
	Vulnus incisum	163		1								2		166	
	Vulnus laceratum	10		1						1				12	
	Vulnus punctum	10												10	
	Vulnus sclopeticum	3												3	
Miscellaneous	Debilitas	6								1				7	
	Ebrietas	74								1		2		77	
	Hæmorrhois	27								1				28	
	Hernia	18												18	
	Morbi cutis	23												23	
	Ophthalmia	113		5								1		119	
	Scorbutus														
	Suicidium														
	All other diseases	389	3	8						5		2		404	3
	Total	5,139	37	51						41		32		5,266	37

No. 5.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG THE

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	7,308.		544.		2,284.		1,621.		965.		1,461.		14,185.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers.	Febris continua communis	34				15		1				2		52	
	Febris intermittens quotidiana	111		8		54		9		5		7		190	
	Febris intermittens tertiana	124		6		12		19		6		17		175	
	Febris intermittens quartana	7		1		7						1		16	
	Febris remittens	14												14	
	Febris typhus et typhoides					1				1		2		4	
	Febris typhus icterodes														
Eruptive fevers.	Erysipelas	6		2		2		1		1				12	
	Rubeola														
	Scarlatina	1												1	
	Variola														
	Varicelloides														
	Cholera Asiatica									1				1	
Diseases of the organs connected with the digestive system.	Diarrhœa	116	3	38		93	2	44	1	25	1	16		332	7
	Dysenteria acuta	18		3		12		16		4	1	27		80	1
	Dysenteria chronica	1	1			1						1		6	4
	Enteritis						1								1
	Hepatitis acuta	1						1						2	
	Hepatitis chronica	6									1			6	1
	Obstipatio	67		5		36		13		12		45		198	
	All other diseases	146		9		64		32		14		19		284	
Diseases of the respiratory system.	Bronchitis acuta et chronica	20	3			49		1		3		23		96	3
	Catarrhus	656		35		344		159		79		113		1,396	
	Phthisis pulmonalis	7	5		2	2	1						1	9	9
	Pleuritis	49		3		7						10		69	
	Pneumonia	21	2	5		6	4	1	1	2		2		37	7
	All other diseases	9		4		10	1			2		5		30	1
Diseases of the brain and nervous system.	Cephalalgia	29				43		7		2		9		90	
	Delirium tremens	25				3				1		1	1	30	1
	Epilepsia	11		3		1		2				2		19	
	Neuralgia	10		5		6		1		2		2		26	
	All other diseases	8	1	1		3		1		1		1		15	1
Diseases of the urinary and genital organs.	Gonorrhœa	54		11		9		6		11		8		99	
	Stricture urethræ	1										2		3	
	Syphilis primitiva	14				8		3		3		4		32	
	Syphilis consecutiva	5				1	1	2		1		2		11	1
	All other diseases	15		1		8		7		2	1	3		36	1
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases	2				1						1		4	
Diseases of the fibrous and muscular structures.	Pemio	165		33		108	1	82	1	11			1	399	3
	Podagra														
	Rheumatismus	248	2	15		51		32		12		31		379	2
Abscesses and ulcers.	Fistula	2												2	
	Phlegmon et abscessus	197		23		55		40		23		26		384	
	Ulcus	54		5		23		8		7		5		102	
Wounds and injuries.	Ambustio	15				10		11		2		3		41	
	Amputatio	2												2	
	Contusio	195		25		76		63		32		33		424	
	Fractura	18				2		1				1		22	
	Luxatio	9		1		1						1		12	
	Punctio	14												14	
	Sub luxatio	63		13		22		22		6		8		134	
	Vulnus morsum	136		6		15		23		15		10		205	
	Vulnus laceratum	26		7		22		29		9		13		106	
	Vulnus punctum	23		3		2		4		2		5		39	
	Vulnus sclopeticum	4		1										5	
Miscellaneous.	Debilitas	1				6		4						11	
	Ebrietas	49		1		1		2		4		4		64	
	Hemorrhois	21				4		3		2		3		33	
	Hernia	5				2		3						10	
	Morbi cutis	24		4		15		7		2		8		60	
	Ophthalmia	65		6		20		24		8		16		139	
	Scorbutus	41	2			157		87		45		30	2	360	4
	Suicidium						1								1
	All other diseases	168		35		79	2	87		36		36		441	2
	Total	3,126	22	338	2	1,502	14	846	3	394	4	358	5	6,763	50

TROOPS AT POSTS IN THE NORTH INTERIOR REGION.—WEST OF THE GREAT LAKES.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,970.		913.		2,052.		1,408.		778.		1,112.		13,233.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	22	.....	2	.....	7	.....	2	.....	4	1	.....	.....	37	1
	Febris inter. quotidiana	291	.....	40	.....	83	.....	11	.....	9	.....	19	.....	363	.....
	Febris intermittens tertiana	347	.....	23	.....	31	.....	4	.....	11	.....	58	.....	474	.....
	Febris intermittens quartana	7	.....	.....	.....	1	.....	3	.....	.....	.....	.....	.....	11	.....
	Febris remittens	39	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	41	.....
	Febris typhus et typhoides	6	1	.....	.....	2	.....	1	.....	.....	.....	2	.....	11	1
	Febris typhus retrodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	8	1	1	.....	.....	.....	2	.....	.....	.....	1	.....	12	1
	Rubeola	2	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	5	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	7	1	24	14	.....	.....	.....	.....	.....	.....	.....	.....	31	15
	Diarrhœa	369	.....	138	.....	88	.....	65	.....	12	.....	45	.....	717	.....
	Dysenteria acuta	60	1	52	.....	29	.....	6	.....	6	.....	16	.....	169	1
	Dysenteria chronica	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	2	1
	Enteritis	1	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	3	.....
	Hepatitis acuta	8	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Hepatitis chronica	5	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	1
	Obstipatio	102	.....	39	.....	64	.....	37	.....	12	.....	35	.....	289	.....
	All other diseases	178	.....	26	.....	38	.....	39	.....	19	.....	29	.....	329	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	20	1	12	.....	5	.....	5	.....	1	.....	2	.....	45	1
	Catarrhus	475	.....	31	.....	65	.....	94	.....	8	.....	56	.....	729	.....
	Phthisis pulmonalis	9	5	.....	.....	.....	.....	1	.....	.....	1	.....	.....	10	6
	Pleuritis	47	2	.....	.....	.....	.....	1	.....	2	.....	1	.....	51	2
	Pneumonia	33	.....	7	1	2	.....	1	.....	.....	.....	1	.....	44	1
	All other diseases	11	.....	2	.....	1	.....	19	.....	.....	.....	.....	.....	33	.....
Diseases of the brain and nervous system.	Cephalalgia	51	.....	13	.....	48	.....	.....	.....	2	.....	5	.....	119	.....
	Delirium tremens	24	2	.....	.....	.....	.....	.....	.....	2	1	1	.....	30	3
	Epilepsia	8	.....	1	.....	6	.....	.....	.....	.....	.....	.....	.....	15	.....
	Neuralgia	10	.....	3	.....	6	.....	2	.....	2	.....	.....	.....	23	.....
	All other diseases	11	1	2	.....	2	.....	.....	.....	.....	.....	.....	.....	15	1
Diseases of the urinary and genital organs.	Gonorrhœa	74	.....	1	.....	6	.....	6	.....	5	.....	7	.....	96	.....
	Stricturæ urethræ	.....	.....	.....	.....	2	.....	2	.....	.....	.....	1	.....	5	.....
	Syphilis primitiva	9	.....	8	.....	3	.....	.....	.....	2	.....	3	.....	25	.....
	Syphilis consecutiva	3	.....	.....	.....	3	.....	2	.....	.....	.....	6	.....	14	.....
	All other diseases	30	.....	3	.....	6	.....	9	.....	2	.....	2	.....	52	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
	All other diseases	5	1	.....	.....	.....	.....	3	.....	1	.....	.....	1	9	2
Diseases of the fibrous and muscular structures.	Pernio	5	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	10	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	291	.....	27	.....	56	.....	41	.....	18	.....	12	.....	443	.....
Abscesses and ulcers	Fistula	2	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	4	.....
	Phlegmon et abscessus	182	.....	54	.....	59	.....	44	.....	12	.....	25	1	376	1
	Ulcus	74	.....	2	.....	6	.....	13	.....	2	.....	3	.....	100	.....
Wounds and injuries	Ambustio	14	.....	1	.....	4	.....	2	.....	2	.....	3	.....	25	.....
	Amputatio	2	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	4	.....
	Contusio	253	.....	13	.....	49	.....	68	.....	22	.....	31	.....	436	.....
	Plaga	9	.....	.....	.....	2	.....	4	.....	1	.....	2	.....	18	.....
	Luxatio	14	.....	.....	.....	9	.....	.....	.....	1	.....	1	.....	25	.....
	Punitio	9	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....
	Subluxatio	69	.....	19	.....	16	.....	17	.....	4	.....	20	.....	145	.....
	Vulnus incisum	112	.....	9	.....	15	.....	25	.....	10	.....	10	.....	181	.....
	Vulnus laceratum	14	.....	4	.....	17	.....	15	.....	3	.....	13	.....	66	.....
	Vulnus punctum	21	.....	6	.....	6	.....	2	1	6	.....	2	.....	43	1
	Vulnus sclopeticum	25	1	.....	.....	2	.....	1	.....	.....	.....	1	.....	29	1
Miscellaneous	Debilitas	8	.....	4	.....	3	.....	8	.....	1	.....	2	.....	26	.....
	Ebrietas	69	.....	2	.....	11	.....	6	.....	2	.....	1	.....	91	.....
	Hæmorrhois	21	.....	3	.....	8	.....	4	.....	3	.....	4	.....	43	.....
	Hernia	8	.....	1	.....	2	.....	3	.....	.....	.....	3	.....	17	.....
	Morbi cutis	25	.....	2	.....	9	.....	8	.....	.....	.....	6	.....	51	.....
	Ophthalmia	130	.....	8	.....	33	.....	16	.....	2	.....	15	.....	194	.....
	Scorbutus	20	1	18	.....	33	2	63	.....	12	.....	25	.....	171	3
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	283	2	82	.....	65	2	92	.....	24	.....	25	.....	571	4
	Total	3,836	21	684	15	908	6	758	1	225	3	186	2	6,597	48

No. 5.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG THE

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	7,306.		1,195.		1,694.		830.		1,037.		1,138.		13,200.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	61	.....	19	.....	8	.....	2	.....	4	.....	3	.....	97	.....
	Febris intermittens quotidiana	556	2	62	.....	50	.....	11	.....	30	.....	17	.....	730	2
	Febris intermittens tertiana	441	.....	20	.....	12	.....	10	.....	20	.....	10	.....	503	.....
	Febra intermittens quartana	6	.....	12	.....	1	.....	.....	.....	.....	.....	.....	.....	19	.....
	Febris remittens	178	2	.....	.....	.....	.....	3	1	1	.....	7	.....	189	3
	Febris typhus et typhoides	3	.....	24	2	1	.....	1	.....	7	1	4	1	40	4
	Febris typhus heterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Rubeola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicelloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	33	3	53	10	.....	.....	.....	.....	.....	.....	.....	.....	86	13
	Diarrhœa	964	3	337	1	219	.....	73	.....	110	1	159	.....	1,862	5
	Dysenteria acuta	247	.....	8	1	30	.....	10	.....	43	.....	50	.....	388	1
	Dysenteria chronica	10	1	.....	.....	.....	1	.....	.....	3	1	3	.....	16	3
	Enteritis	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Hepatitis acuta	7	.....	3	.....	1	.....	1	.....	.....	.....	.....	.....	12	.....
	Hepatitis chronica	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Obstipatio	162	.....	43	.....	36	.....	33	.....	26	.....	21	.....	321	.....
	All other diseases	224	.....	30	.....	40	.....	18	1	31	.....	38	.....	381	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	38	1	.....	.....	.....	.....	3	.....	3	.....	.....	.....	44	1
	Catarrhus	419	.....	.....	.....	36	.....	17	.....	65	.....	23	.....	560	.....
	Phthisis pulmonalis	7	5	3	1	2	.....	1	1	1	1	.....	.....	14	8
	Pleuritis	21	.....	1	.....	1	.....	1	.....	4	.....	.....	.....	28	.....
	Pneumonia	8	.....	1	.....	.....	.....	1	.....	2	1	.....	.....	12	1
	All other diseases	23	.....	26	.....	.....	.....	.....	.....	3	.....	3	.....	55	.....
Diseases of the brain and nervous system.	Cephalalgia	59	.....	9	.....	22	.....	8	.....	8	.....	4	.....	110	.....
	Delirium tremens	22	1	.....	.....	1	1	.....	.....	.....	.....	1	1	24	3
	Epilepsia	21	1	3	.....	7	.....	.....	.....	1	.....	1	.....	53	1
	Neuralgia	2	.....	5	.....	8	.....	3	.....	1	.....	1	.....	20	.....
	All other diseases	21	2	.....	.....	.....	.....	.....	.....	1	.....	1	1	23	3
Diseases of the urinary and genital organs.	Gonorrhœa	73	.....	.....	.....	10	.....	14	.....	14	.....	9	.....	120	.....
	Stricture urethræ	.....	.....	1	.....	.....	.....	1	.....	1	.....	1	.....	4	.....
	Syphilis primitiva	9	.....	6	.....	1	.....	4	.....	13	.....	9	.....	42	.....
	Syphilis consecutiva	9	.....	4	.....	4	.....	.....	.....	6	.....	7	.....	30	.....
	All other diseases	39	.....	6	.....	7	.....	7	.....	6	.....	10	.....	75	.....
Diseases of the serous and exhalent vessels.	Ascites	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	8	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	9	1
Diseases of the fibrous and muscular structures.	Pernio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	256	1	28	.....	40	.....	22	.....	31	.....	25	.....	416	1
Abscesses and ulcers	Fistula	3	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	5	.....
	Phlegmon et abscessus	273	.....	55	.....	62	.....	34	.....	41	.....	29	.....	494	.....
	Ulcus	40	.....	9	.....	11	.....	3	.....	.....	.....	18	.....	99	.....
Wounds and injuries	Ambustio	15	.....	4	.....	4	.....	1	.....	1	.....	2	.....	27	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	229	.....	47	.....	75	.....	54	.....	33	.....	32	.....	469	.....
	Fractura	18	1	1	.....	4	.....	2	.....	3	.....	7	.....	35	1
	Luxatio	13	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	15	.....
	Punctio	1	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....	9	.....
	Sub luxatio	76	.....	9	.....	13	.....	.....	.....	10	.....	5	.....	113	.....
	Vulnus morsum	186	.....	20	.....	34	.....	11	.....	14	.....	16	.....	281	.....
	Vulnus laceratum	14	.....	5	.....	20	.....	6	.....	7	.....	11	.....	63	.....
	Vulnus punctum	38	.....	4	.....	5	.....	5	1	5	.....	3	.....	60	1
	Vulnus sclopeticum	19	2	3	.....	4	.....	2	1	3	.....	3	.....	34	3
Miscellaneous	Defectus	23	.....	9	.....	7	.....	3	.....	3	.....	20	.....	65	.....
	Electio	91	.....	6	.....	5	.....	1	.....	5	.....	3	.....	114	.....
	Hemorrhois	25	.....	8	.....	8	.....	2	.....	3	.....	2	.....	49	.....
	Hernia	19	.....	4	.....	.....	.....	1	.....	.....	.....	2	.....	26	.....
	Morbi cutis	23	.....	8	.....	19	.....	5	.....	8	.....	14	.....	77	.....
	Ophthalmia	108	.....	14	.....	27	.....	4	.....	12	.....	12	.....	177	.....
	Scrofulæ	6	.....	117	.....	9	.....	3	.....	7	.....	8	.....	150	.....
	Suppuratio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	229	.....	42	.....	90	.....	28	.....	30	.....	49	1	498	1
	Total	5,430	25	1,068	15	936	3	413	5	454	5	669	4	9,180	57

TROOPS AT POSTS IN THE NORTH INTERIOR REGION.—WEST OF THE GREAT LAKES.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1850 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL	
	MEAN STRENGTH	7,335.		2,039.		1,631.		1,023.		1,487.		1,450.		14,956.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	31	.....	31	.....	2	.....	1	.....	2	.....	1	.....	71	.....
	Febris inter. quotidiana	309	1	98	.....	16	.....	3	.....	16	.....	14	.....	456	1
	Febris intermittens tertiana	441	1	26	.....	3	.....	10	.....	30	.....	13	.....	523	1
	Febris intermittens quartana	8	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	10	.....
	Febris remittens	36	.....	3	1	.....	.....	.....	.....	1	.....	.....	.....	40	1
	Febris typhus et typhoides	1	.....	14	3	2	.....	.....	.....	1	.....	.....	.....	18	3
	Febris typhus reterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Erysipelas	7	.....	2	.....	.....	.....	2	.....	1	.....	.....	.....	12	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa	439	1	320	2	158	.....	34	.....	57	1	13	.....	1,041	4
	Dysenteria acuta	54	.....	40	.....	29	1	6	.....	21	.....	33	.....	181	1
	Dysenteria chronica	12	1	1	.....	2	.....	.....	.....	2	.....	1	.....	18	1
	Enteritis	1	1	1	.....	1	.....	.....	.....	3	.....	1	.....	7	1
	Hepatitis acuta	4	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	6	.....
	Hepatitis chronica	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	6	1
	Obstipatio	93	.....	121	.....	13	.....	5	.....	9	.....	23	.....	264	.....
	All other diseases	165	1	49	3	47	.....	30	1	18	.....	7	.....	337	5
Diseases of the respiratory system.	Bronchitis, acuta et chronica	30	.....	53	.....	4	.....	11	.....	5	.....	1	.....	104	.....
	Catarrhus	628	.....	310	.....	186	.....	95	.....	97	.....	85	.....	1,401	.....
	Phthisis pulmonalis	7	.....	3	3	.....	1	1	.....	.....	.....	.....	.....	11	4
	Pleuritis	36	.....	2	.....	.....	.....	2	1	4	.....	5	.....	49	1
	Pneumonia	25	2	6	1	2	.....	2	.....	5	3	2	.....	12	6
	All other diseases	12	.....	3	.....	1	1	.....	.....	6	.....	1	.....	25	1
Diseases of the brain and nervous system.	Cephalalgia	38	.....	55	.....	12	.....	7	.....	5	.....	4	.....	121	.....
	Delirium tremens	21	1	2	.....	1	.....	5	.....	.....	.....	1	.....	30	1
	Epilepsia	14	1	2	.....	2	.....	.....	.....	.....	.....	1	.....	19	1
	Nemalgia	9	.....	14	.....	4	.....	4	.....	1	.....	1	.....	33	.....
	All other diseases	14	.....	1	.....	.....	.....	.....	.....	1	.....	1	.....	17	.....
Diseases of the urinary and genital organs.	Gonorrhœa	61	.....	9	.....	7	.....	3	.....	3	.....	18	.....	101	.....
	Stricture urethræ	3	.....	1	.....	.....	.....	1	.....	1	.....	1	.....	7	.....
	Syphilis primitiva	7	.....	3	.....	.....	.....	.....	.....	3	.....	17	.....	30	.....
	Syphilis consecutiva	8	.....	3	.....	2	.....	3	.....	6	.....	7	.....	29	.....
	All other diseases	45	.....	15	.....	9	.....	5	.....	2	.....	2	.....	78	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	3	.....	1	.....	5	.....
Diseases of the fibrous and muscular structures.	Pernio	75	.....	84	.....	28	.....	3	.....	.....	.....	45	.....	255	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	259	.....	62	.....	55	.....	23	.....	58	.....	26	.....	482	.....
Abscesses and ulcers	Fistula	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	5	.....
	Phlegmon et abscessus	241	.....	61	.....	56	.....	26	.....	36	.....	39	.....	462	.....
	Ulcus	88	.....	16	.....	6	.....	2	.....	10	.....	9	.....	131	.....
Wounds and injuries	Ambustio	21	.....	9	.....	1	.....	5	.....	6	.....	9	.....	57	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	275	1	90	.....	93	.....	34	.....	10	.....	11	.....	513	1
	Ictectura	14	.....	3	.....	2	.....	3	.....	2	.....	5	.....	29	.....
	Luxatio	11	.....	2	.....	.....	.....	.....	.....	3	.....	3	.....	22	.....
	Punctio	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Subluxatio	88	.....	39	.....	12	.....	12	.....	16	.....	27	.....	194	.....
	Vulnus incisum	178	.....	15	.....	41	.....	12	.....	22	.....	15	.....	283	.....
	Vulnus laceratum	21	.....	25	.....	17	.....	13	.....	20	.....	17	.....	114	.....
	Vulnus punctum	22	.....	4	.....	.....	.....	3	.....	1	.....	5	.....	35	.....
	Vulnus sclopetum	9	.....	7	.....	4	.....	.....	.....	3	.....	6	.....	29	.....
Miscellaneous	Debilitas	23	.....	14	.....	2	.....	2	.....	.....	.....	2	.....	43	.....
	Ebrietas	86	.....	1	.....	1	.....	13	.....	1	.....	1	.....	103	.....
	Hæmorrhois	32	.....	8	.....	12	.....	5	.....	4	.....	3	.....	64	.....
	Hernia	8	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	12	.....
	Morbi cutis	17	.....	10	.....	7	.....	8	.....	8	.....	6	.....	56	.....
	Ophthalmia	65	.....	16	.....	11	.....	2	.....	15	.....	7	.....	116	.....
	Scorbutus	13	.....	37	.....	20	.....	2	.....	21	.....	25	.....	118	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	225	2	90	.....	64	.....	20	.....	49	2	32	.....	480	4
	Total	4,313	13	1,791	14	939	3	420	2	621	6	661	1	8,748	39

MIDDLE DIVISION.

MIDDLE ATLANTIC REGION.

This region includes that portion of the Atlantic coast which lies between the thirty-fifth and fortieth degrees of north latitude, comprising not only those stations that are immediately contiguous to the ocean, but those also that are situated upon the bays and rivers not sufficiently removed from the sea to have decidedly an inland climate.

During the period under special review only three stations in this region have been garrisoned with troops, viz: Forts McHenry and Monroe and Washington Arsenal. The statistics in the abstract for this region, and in the tables that more immediately follow, embrace, in addition to the posts above named, the diseases occurring at Forts Mifflin, Severn, and Washington, and Frankford Arsenal, since January, 1839.

For sketches of the medical topography and diseases of these posts, reference is made to the report of 1856.

DISEASES.

The following table compiled from Abstract No. 1, for this division, gives a condensed view of the amount of sickness and mortality in the Middle Atlantic Region, from January, 1839, to January, 1860, a period of twenty-one years:

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	7,465	3,585	21	480	2.8
Second quarter	7,826	4,349	23	555	2.9
Third quarter	9,262	6,544	76	706	8.2
Fourth quarter	9,074	4,291	21	472	2.3
Annual ratio	8,407	18,769	141	2,232	16.8

From the foregoing data it appears that the proportion of cases of sickness to the mean strength of the command is 2.23 to 1; and that the ratio of deaths to the number of troops is 1 in 59.6, or 1.68 per cent. The proportion of deaths to cases treated is 1 in 133.11, or 0.75 per cent.

In reference to this high ratio of sickness and mortality the following explanation was made in the report of 1856:

"The cause of this high ratio of sickness and death is explained by reference to the original report for Fort Monroe, for the third quarter of 1848, which shows a total of 132 cases of remittent fever, 42 cases of yellow fever, 328 of diarrhœa, and 42 of acute dysentery, occurring in

troops which arrived during that quarter, either direct from Vera Cruz, or by the way of New Orleans. An examination of the abstract shows that in the third quarter of 1848 the 'mean strength' was 736; the number of cases treated, 848; and the deaths, 56. If we leave out altogether the statistics for that quarter, we have the following as the mean results for this region for a period of fourteen and three fourths years:

"*Annual ratio.*—Mean strength, 6,115: cases treated, 13,414; deaths, 61. This makes the proportion of cases to the number of troops 2.19 to 1, and that of deaths 1 in 100, or 1 per cent. The ratio of deaths to cases treated would be 1 in 219, or 0.45 per cent."

Assuming the same premises, that is, excluding the statistics for the third quarter of 1848, the ratio of sickness and mortality in this region for a period of twenty-one years are as follows: Mean strength, 7,671; cases treated, 17,921; deaths, 85. The proportion of cases of sickness to the number of troops is 2.33 to 1; and the deaths 1 in 90, or 1.11 per cent. The ratio of deaths to the number of cases treated, is 1 to 211, or 0.47 per cent.

In the general summaries for this region these last ratios will be given, as most correctly exhibiting the true proportion of sickness and mortality.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	7,465		7,826		9,262		9,074		8,407				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris continua remittens	5	0	17	0	32	0	13	0	67	0	0 in	67	8
Febris intermittens quotidiana	37	0	72	0	185	0	90	0	384	0	0 in	384	45
Febris intermittens tertiana	218	0	389	0	500	0	417	0	1,524	0	0 in	1,524	181
Febris intermittens quartana	9	0	20	0	28	0	21	0	78	0	0 in	78	9
Febris remittens	19	1	41	0	270	3	57	1	387	5	1 in	77	46
Febris typhus et typhoides	5	0	3	0	8	0	4	0	20	0	0 in	20	2.3
Febris typhus icterodes	3	0	2	0	47	39	1	1	53	40	4 in	5	6.3
Total	296	1	544	0	1,070	42	603	2	2,513	45	1 in	56	299

The only report of interest respecting fevers in this region during the five years under special review, is the following:

SANITARY REPORT—FORT McHENRY, MARYLAND.

Surgeon Charles McDougall: September, 1858.

From the 16th to the 26th of September ten cases of yellow fever have occurred at Fort McHenry; four fatal, six convalescent.

Private Mullen, K company, First Artillery, taken on the 16th, died on the 19th; had black vomit and yellow skin.

Sergeant Donnelly, K company, First Artillery, taken sick on the 17th, died on the 21st; had black vomit and yellow skin.

Mrs. Dawson, laundress, taken on the 20th, died on the 23d; had black vomit and yellow skin.

Ordnance Sergeant Wilson, attacked on the 24th, died on the 28th; yellow skin.

All who have convalesced had more or less discoloration of the skin.

The symptoms of the disease were slight chills; intense pain in the head, eye-balls, and

back; injected conjunctiva; tenderness of the epigastrium; incoherency of speech; confusion of intellect; temperature slightly increased; average pulse 80.

Treatment mainly with calomel, quinine, and opium, with the usual adjuvants.

We give the case of Sergeant Wilson in detail. Reported sick on the morning of the 24th; had a chill in the night; reaction complete; complained of intense pain in the head; pulse 90, with unusual impulse; eyes red, face flushed; is a large, robust man, of great muscular force; nervo-sanguineous temperament. Took two pounds of blood from the arm with immediate relief to his sufferings. Ordered twenty grains of calomel and sulphate of magnesia in six hours after. Ice water to head, crushed ice for thirst. Calomel and salts operated well. Spt: nit: et vin: ipec: febrifuge for the night.

25th. Symptoms better. Ordered calomel, grs. ten, quinine, five, every three hours during the day. Complains of nausea in the night; apply mustard plaster over the stomach. Continue calomel and quinine, reducing former to two grains, with half grain of opium. The same on the 26th, with mustard plaster to spine. Complains of the specific effects of the calomel and quinine on his mouth and head, discontinue calomel and mustard.

27th. Nausea and vomiting continue; brandy and water ordered and medicine discontinued. Pulse feeble; had two convulsions in the night, and hemorrhage from the bowels. Moribund in the morning, died at 2 P. M. Skin very yellow.

We confess to disappointment at the termination of the case. Wilson had been fairly and energetically treated from the onset of his attack, with special reference to the timely exhibition of calomel and quinine. His constitution responded to the specific action of those medicines, but the fatal indication of "coffee-ground-colored specks," observed in the matter ejected from the stomach prior to the hemorrhage from the bowels in the night, forbode the sad result.

Sergeant Wilson was a gallant soldier, and possessed all the elements of a gentleman.

After a careful and critical examination of Fort McHenry and its immediate localities nothing could be found which would predispose to or engender disease. The police was perfect; the drainage as complete as could be desired. No standing water. Clothing and diet of the soldiers excellent; the general habits of the command perhaps better than at most of our military posts. How, then, could the yellow fever originate, or whence contracted? All of the cases but one occurred in the row of frame shanties northeast from the fort, some eighty yards. Five of the inmates were attacked by the fever about one time, and all within a period of eight days. The shanties were clean and well whitewashed, but old and deficient in sub-ventilation. We can imagine that the sweepings and washings of years might have produced a condition like that of defective sewerage, which would favor or induce disease. But most unlikely in regard to those shanties. We believe that the yellow fever at Fort McHenry came from vessels infected with the disease at quarantine, near by; that the infecting poison was carried by the winds to the frame shanties facing the bay; and those who inhaled the poison, being in condition, took the disease. The command in the fort were protected by the ramparts; not one of them sickened. Why their immunity from an attack? There seems to me not a doubt that the *materia morbi* of yellow fever is *portable*, and where it finds favoring conditions will reproduce itself and extend its dreadful ravages.

The inclosed report was made to the commanding officer at Fort McHenry.

HOSPITAL, FORT MCHENRY, MD.,
September 28, 1858.

MAJOR: The disease prevailing at this post is undoubtedly "yellow fever." Sergeant Donnelly, Private Mullen, and Mrs. Dawson have fallen victims, and several cases are under treatment.

How generated, or from whence contracted, after a careful and searching examination, I have not been able to find out. The hygienic condition of Fort McHenry, including everything that could contribute to the health of the command, could not be better. During the entire summer season it has had more than an ordinary exemption from the common sicknesses of the country.

As *all* the cases of the disease have occurred in the row of one-story frame buildings east of the fort, and occupied by the laundresses and soldiers' families, a thorough examination of the premises was made to discover, if possible, any cause which would be likely to affect injuriously the health of the post. None could be found. The buildings, which are mere "shanties," were erected many years ago for the accommodation of the employés of the Engineer Department when constructing the fort. They are old, much decayed, and without proper ventilation under the floors.

If there *are* any local agencies or emanations which would predispose to or generate disease, it must be the confined and inquinated air under those houses. Exteriorly and within they are cleaner and in better condition for occupancy than houses of a similar class in the city of Baltimore; and what adds to the suspicion that causes of disease do exist in or about them, is the fact that the worst forms of disease which have heretofore prevailed at this post, have first appeared in them.

In consideration of all above stated and after mature reflection, the undersigned deems it his imperative duty respectfully to recommend that those buildings be consumed by fire.

Very respectfully, your obedient servant,

CHAS. McDOUGALL,
Surgeon U. S. Army.

Major W. H. FRENCH, *First U. S. Artillery,*
Commanding post.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	7,465		7,826		9,262		9,074		8,407			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Diarrhœa	153	0	443	0	1,209	15	313	1	2,118	16	1 in 132	252
Dysenteria acuta	65	0	220	0	363	2	141	3	789	5	1 in 158	94
Dysenteria chronica	6	0	22	1	12	2	1	0	44	3	1 in 15	5.2
Enteritis	0	0	0	0	0	0	9	0	9	0	0 in 9	1
Hepatitis acuta	7	0	15	0	1	0	4	0	27	0	0 in 27	3.2
Hepatitis chronica	2	0	8	0	2	0	5	0	17	0	0 in 17	2
Obstipatio	123	0	241	0	254	0	128	0	746	0	0 in 746	88.7
All other diseases of this class	194	1	291	1	487	1	226	0	1,198	3	1 in 399	142
Total	550	1	1,240	2	2,328	20	830	4	4,948	27	1 in 183	588

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportional admissions.		Ratio per 1,000 of mean strength.
Strength	7,465		7,826		9,262		9,054		8,407				
Disease.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	15	0	18	1	16	0	21	0	70	1	1 in	70	8.3
Catarrhus	846	0	521	0	706	0	759	0	2,832	0	0 in	2,832	336
Phthisis pulmonalis	5	4	4	5	11	4	8	6	28	19	2 in	3	3.3
Pleuritis	25	0	33	0	29	0	19	0	106	0	0 in	106	12.6
Pneumonia	34	2	21	1	8	1	14	3	77	7	1 in	11	9
All other diseases of this class	21	0	10	0	15	0	12	2	58	2	1 in	29	6.9
Total	946	6	607	7	785	5	833	11	3,171	29	1 in	109	377
Rheumatismus	197	0	224	0	229	1	225	0	875	1	1 in	875	104

MIDDLE INTERIOR REGION—EAST.

This region includes all that portion of the United States lying between the immediate Atlantic slope and the Mississippi river, and within nearly the same parallels of latitude which defined the northern and southern boundaries of the Middle Atlantic Region.

Although only three stations are located in this district, it has been found advisable to present the diseases in two abstracts, on account of the dissimilarity between those prevailing in the region of the Alleghanies and in the valley of the Ohio.

The first abstract will, therefore, present the diseases occurring at Carlisle Barracks and at Alleghany Arsenal; the second, those at Newport Barracks.

For brief descriptions of these military stations the reader is referred to the report of 1856.

DISEASES.

Following the order heretofore pursued in this report, the aggregate amount of sickness and mortality at Carlisle Barracks and at Alleghany Arsenal, for a period of twenty-one years, from January, 1839, to January, 1860, are presented in the following table, compiled from Abstract No. 2 for this division.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	3,171	2,831	18	892	5.6
Second quarter	4,068	2,751	11	676	2.7
Third quarter	4,332	4,123	20	952	4.6
Fourth quarter	3,645	2,405	11	660	3
Annual ratio	3,894	12,110	60	3,183	15.7
Exclusive of cholera		12,098	57	3,180	14.9

An analysis of this table shows that the proportion of cases treated to the mean strength of the forces is 3.18 to 1; and of deaths 1 in 63.4, or 1.57 per cent. The ratio of deaths to the number of cases treated is 1 in 201.83, or 0.49 per cent. Exclusive of cholera, the ratio of deaths to the number of men is 1 in 66.7, or 1.49 per cent.

FEVERS.

Quarter	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean Strength.
Strength	3,171		4,068		4,332		3,645		3,804			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	16	0	17	0	8	0	29	0	70	0	0 in 70	18
Febris intermittens quotidiana	48	0	86	0	174	0	29	0	337	0	0 in 337	88
Febris intermittens tertiana	79	0	118	0	140	0	98	1	435	1	1 in 435	114
Febris intermittens quartana	6	0	7	0	1	0	1	0	15	0	0 in 15	4
Febris remittens	18	0	43	0	103	1	37	3	201	4	1 in 50	53
Febris typhus or typhoides	9	1	16	2	3	0	17	0	45	3	1 in 15	12
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Total	176	1	287	2	429	1	211	4	1,103	8	1 in 138	289

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	3,171		4,068		4,332		3,645		3,804			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	1	0	0	0	11	3	0	0	12	3	1 in 4	.....
Diarrhœa	243	0	392	1	1,099	1	406	0	2,140	2	1 in 1,070	562
Dysenteria acuta	17	0	62	0	219	1	48	0	346	1	1 in 346	91
Dysenteria chronica	1	0	2	0	2	0	0	0	5	0	0 in 5	1.3
Enteritis	1	1	0	0	4	0	1	0	6	1	1 in 6	1.5
Hepatitis acuta	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Hepatitis chronica	0	0	1	0	0	0	0	0	1	0	0 in 1	0
Obstipatio	91	0	116	0	158	0	84	0	449	0	0 in 449	118
All other diseases of this class	255	0	191	0	296	2	141	2	883	4	1 in 221	232
Total	609	1	764	1	1,789	7	680	2	3,842	11	1 in 349	1,010
Exclusive of cholera									3,830	8	1 in 479	1,007

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	3,171		4,068		4,332		3,645		3,804			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	153	0	29	0	49	0	36	0	267	0	0 in 267	70
Catarrhus	525	0	276	0	216	0	329	0	1,346	0	0 in 1,346	353
Phthisis pulmonalis	4	4	3	0	2	1	2	1	11	6	1 in 1.8	2.8
Pleuritis	27	0	10	0	11	0	20	1	68	1	1 in 68	17.8
Pneumonia	26	3	30	3	14	1	9	0	79	7	1 in 11	20.7
All other diseases of this class	1	0	6	0	1	0	1	0	9	0	0 in 9	2.3
Total	736	7	354	3	293	2	397	2	1,780	14	1 in 127	468
Rheumatismus	106	0	117	1	105	0	71	0	399	1	1 in 399	104

The tables that immediately follow are compiled from Abstract No. 3 for this division, embracing one station only, Newport Barracks, Kentucky; and covering a period of thirteen years, from 1847 to 1860:

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	2,609	1,645	23	630	8
Second quarter	2,398	1,717	27	711	11
Third quarter	2,367	1,887	23	797	10
Fourth quarter	2,526	1,637	15	648	6
Annual ratio	2,475	6,886	88	2,782	35.5
Exclusive of cholera		6,655	72	2,692	29.3

An analysis of this table gives the following results: The proportion of cases of sickness to the number of troops is 2.78 to 1; and that of deaths 1 in 28.12, or 3.55 per cent. The ratio of deaths to the number of cases treated is 1 in 78.25, or 1.27 per cent.

Exclusive of cholera, the proportion of cases to the number of troops is 2.69 to 1; and that of deaths, 1 in 34.57, or 2.93 per cent. The ratio of deaths to cases treated is 1 in 92.43, or 1.08 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	2,609		2,398		2,367		2,526		2,475			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	3	0	0	0	0	0	0	0	3	0	0 in 3	1
Febris intermittens quotidiana	205	0	273	0	273	0	346	0	1,097	0	0 in 1,097	443
Febris intermittens tertiana	70	0	69	0	69	0	35	0	243	0	0 in 243	98
Febris intermittens quartana	0	0	0	0	11	0	3	0	14	0	0 in 14	5.6
Febris remittens	14	0	37	1	60	0	20	0	131	1	1 in 131	53
Febris typhus et typhoides	33	0	23	4	20	1	24	3	100	8	1 in 12.5	40
Febris typhus reterodes	0	0	0	0	4	0	1	0	5	0	0 in 5	2
Total	325	0	402	5	437	1	429	3	1,593	9	1 in 177	643

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	2,609		2,398		2,367		2,526		2,475			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	95	4	119	10	17	2	231	16	1 in 14	.....
Diarrhœa	149	3	322	0	462	5	258	1	1,191	9	1 in 132	481
Dysenteria acuta	15	1	22	2	63	0	28	1	128	4	1 in 32	51.7
Dysenteria chronica	1	0	1	0	1	0	0	1	3	1	1 in 3	1.2
Enteritis	2	0	3	0	6	0	2	0	13	0	0 in 13	5.2
Hepatitis acuta	0	0	2	0	0	0	1	0	3	0	0 in 3	1.2
Hepatitis chronica	3	0	1	0	0	0	0	0	4	0	0 in 4	1.6
Obstipatio	63	0	76	0	74	0	36	0	249	0	0 in 249	100
All other diseases of this class	99	0	109	2	128	1	77	1	413	4	1 in 103	167
Total	332	4	631	8	853	16	419	6	2,235	34	1 in 65	903
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	2,004	18	1 in 111	809

The cases of cholera Asiatica, reported in the abstract for Newport Barracks, and in this table, occurred in the years 1849, 1850, 1851, and 1852. For remarks respecting those cases and their treatment, reference is made to the report of 1856.

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	2,609		2,398		2,367		2,526		2,475			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	35	0	13	0	8	0	18	0	74	0	0 in 74	30
Catarrhus	322	0	70	0	40	0	212	0	644	0	0 in 644	260
Phthisis pulmonalis	2	2	4	3	2	1	1	0	9	6	1 in 1.5	3.6
Pleuritis	27	0	19	0	14	0	14	1	74	1	1 in 74	30
Pneumonia	80	6	32	2	1	0	33	0	146	8	1 in 18	60
All other diseases of this class	4	0	4	0	5	0	5	0	18	0	0 in 18	7.2
Total	470	8	142	5	70	1	283	1	965	15	1 in 64	390
Rheumatismus	42	0	44	0	36	0	34	0	156	0	0 in 156	63

MIDDLE INTERIOR REGION—WEST.

The region thus designated, for the purposes of this report, embraces that portion of country lying between the Mississippi and the eastern slope of the Rocky Mountains, and the thirty-sixth and fortieth parallels of north latitude.

The military stations which have been or are now occupied in this region are six in number, viz: Jefferson Barracks, St. Louis Arsenal, Forts Leavenworth, Scott, Atkinson, and Riley.

Jefferson Barracks having been occupied as a depot for recruits, and being also peculiarly located in reference to its medical topography, it has been determined to present the diseases occurring there, and at St. Louis Arsenal, which is in its vicinity, in a separate abstract, and to classify the diseases of the remaining four posts together.

DISEASES.

For remarks relative to the medical topography and diseases of Jefferson Barracks and St. Louis Arsenal, the report of 1856 may be consulted. The following table, compiled from Abstract No. 4 for this division, exhibits the amount of sickness and mortality at these two stations during a period of twenty-one years, from January, 1839, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength	
				Treated.	Died.
First quarter	7,743	5,737	104	741	13.4
Second quarter	5,699	6,140	129	1,077	22.8
Third quarter	7,195	7,473	152	1,038	21
Fourth quarter	7,188	6,356	84	884	11.6
Annual ratio	6,956	25,706	469	3,695	67.4
Exclusive of cholera		25,062	304	3,603	43.7

It is here shown that the annual proportion of cases of sickness to the mean strength of the commands at Jefferson Barracks and St. Louis Arsenal is 3.69 to 1; and that the corresponding ratio of deaths is 1 in 14.83 or 6.74 per cent. Also that the proportion of deaths to the number of cases treated is 1 in 54.81, or 1.82 per cent.

Exclusive of cholera, the proportion of cases treated to the number of men is 3.60 to 1; and that of deaths, 1 in 22.88, or 4.37 per cent. The ratio of deaths to cases treated is 1 in 82.44, or 1.21 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	7,743		5,699		7,195		7,188		6,956			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris congestiva	7	7	1	1	6	6	8	6	22	20	1 in 1.1	3
Febris continua communis	2	0	7	0	12	0	6	0	27	0	0 in 27	3.8
Febris intermittens quotidiana	392	0	579	0	777	2	661	0	2,409	2	1 in 1,204	344
Febris intermittens tertiana	612	0	545	2	1,006	0	993	0	3,156	2	1 in 1,578	453
Febris intermittens quartana	8	0	18	0	2	0	8	0	36	0	0 in 36	5
Febris remittens	51	1	54	2	184	10	100	7	389	20	1 in 19	56
Febris typhus et typhoides	17	3	19	2	14	4	19	0	69	9	1 in 7.6	10
Febris typhus ictorodes	0	0	3	0	1	0	2	1	6	1	1 in 6	1
Total	1,089	11	1,226	7	2,002	22	1,797	14	6,114	54	1 in 113	879

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	7,743		5,699		7,195		7,188		6,956			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	81	39	271	68	281	50	11	8	644	165	1 in 3.8	
Diarrhœa	718	7	1,251	8	1,759	38	1,141	11	4,869	64	1 in 76	700
Dysenteria acuta	177	0	349	2	575	9	267	8	1,368	19	1 in 38	196
Dysenteria chronica	58	2	89	1	32	2	16	2	195	7	1 in 28	28
Enteritis	1	0	0	0	0	0	1	1	2	1	1 in 2	0.3
Hepatitis acuta	1	0	4	0	4	0	0	0	9	0	0 in 9	1.2
Hepatitis chronica	0	0	2	0	2	0	8	2	12	2	1 in 6	1.7
Obstipatio	251	0	233	0	285	0	211	0	980	0	0 in 980	142
All other diseases of this class	261	2	170	1	201	1	187	2	819	6	1 in 136	117
Total	1,548	50	2,369	80	3,139	100	1,842	34	8,898	264	1 in 34	1,279
Exclusive of cholera									8,254	99	1 in 83	1,186

It appears from the records of the Medical Bureau that the cholera has prevailed at Jefferson Barracks in the years 1849, 1850, 1851, 1852, and 1855. The report of 1856 contains brief notes relative to this disease, and to it the reader is referred.

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength
Strength	7,743		5,699		7,195		7,188		6,956			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	55	1	35	3	4	0	41	1	135	5	1 in 27	19
Catarrhus	1,016	0	542	0	516	3	793	0	2,867	3	1 in 956	412
Phthisis pulmonalis	7	5	4	3	10	10	5	6	26	24	1 in 1.08	3.7
Pleuritis	56	4	43	3	17	1	51	3	167	11	1 in 15	24
Pneumonia	66	15	36	14	4	0	59	11	165	10	1 in 16	23.7
All other diseases of this class	7	1	8	0	8	0	7	1	30	2	1 in 15	4
Total	1,207	26	668	23	559	14	956	22	3,390	85	1 in 40	487
Rheumatismus	203	0	204	0	123	0	141	0	671	0	0 in 671	96

We now proceed to the statistics of disease at the remaining posts in this region. Of the several posts situated in the region now under consideration, Forts Scott and Atkinson have not been occupied during the period under special review; that is, since January, 1855. The report of 1856 may be consulted for sketches of the medical topography and diseases of each of those stations, and also of Forts Leavenworth and Riley.

DISEASES.

The following table has been compiled from Abstract No. 5 for this division. It covers a period of twenty-one years, from January, 1839, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated	Died
First quarter	10,910	7,922	70	726	6.4
Second quarter	10,006	8,875	124	886	12.3
Third quarter	7,225	8,839	85	1,223	11.7
Fourth quarter	10,582	10,010	54	946	5.1
Annual ratio	9,681	25,646	333	2,649	34.4
Exclusive of cholera		25,384	217	2,622	22.4

It is here shown that the annual proportion of cases of sickness to the mean strength of the command in this region is 2.64 to 1, and that the corresponding ratio of deaths is 1 in 29, or 3.44 per cent. The proportion of deaths to the number of cases treated is 1 in 77, or 1.3 per cent.

Exclusive of cholera, the ratio of cases to the number of men is 2.62 to 1, and that of deaths 1 in 44.61, or 2.24 per cent. The ratio of deaths to cases treated is 1 in 117, or 0.85 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	10,910		10,006		7,225		10,582		9,681				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris congestiva	1	0	1	0	7	3	0	0	9	3	1 in	3	0.9
Febris continua communis	12	0	25	1	61	0	48	2	146	3	1 in	49	15
Febris intermittens quotidiana	370	0	682	0	1,601	0	1,414	0	4,067	0	0 in	4,067	420
Febris intermittens tertiana	651	0	1,160	0	950	1	1,117	0	3,878	1	1 in	3,878	400
Febris intermittens quartana	4	0	10	0	31	0	14	0	59	0	0 in	59	6
Febris remittens	28	0	88	1	209	3	79	1	404	5	1 in	81	41.7
Febris typhus et typhoides	13	2	8	4	14	4	31	5	66	15	1 in	4.4	6.8
Febris typhus et typhoides	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Total	1,079	2	1,974	6	2,873	11	2,703	8	8,629	27	1 in	319	890

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	10,910		10,006		7,225		10,582		9,681				
Diseases	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	6	2	156	69	91	43	9	2	262	116	1 in	2.25	.....
Diarrhœa	567	6	1,087	4	1,418	0	1,279	8	4,351	18	1 in	242	449
Dysenteria acuta	105	2	167	3	333	4	204	1	809	10	1 in	8+	83
Dysenteria chronica	9	0	3	0	10	0	10	1	32	1	1 in	32	3.3
Enteritis	4	2	6	2	3	0	4	1	17	5	1 in	3.4	1.7
Hepatitis acuta	8	0	14	0	7	0	7	0	36	0	0 in	36	3.7
Hepatitis chronica	3	0	2	0	3	0	4	0	12	0	0 in	12	1.2
Obstipatio	269	0	393	0	317	0	247	0	1,226	0	0 in	1,226	126
All other diseases of this class	317	2	345	0	388	3	304	2	1,354	7	1 in	193	140
Total	1,288	14	2,173	78	2,570	50	2,068	15	8,099	157	1 in	51	836
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	7,837	41	1 in	191	809

During the twenty-one years covered by this report—that is, from January, 1839, to January, 1860, the Asiatic cholera has prevailed, as an epidemic, in 1849, 1850, 1851, 1852, 1854, and 1855. The report of 1856 contains the following brief note of this disease as it appeared at Fort Leavenworth:

"The only station in the class now under consideration, which has been visited to any extent by cholera during the period embraced in this report, is Fort Leavenworth, where the first case is reported in January, 1849. Surgeon McDougall, in transmitting his report of sick for the third quarter of 1848, remarks that 'the whole command has been more or less affected with diarrhœa, which has prevailed extensively throughout the country; perhaps more owing to an epidemic constitution of the atmosphere than to the usual causes.' In the next quarterly

report, December, 1848, the same surgeon comments upon the marked exemption of the troops from miasmatic diseases, which he attributes to the limited inundations of the Missouri river, and upon the prevalence of diarrhœa. He also notes the fact that all diseases are of a marked asthenic character; which is again stated to be the case in the next report, (that for the first three months of 1849,) when cholera made its appearance, and continued, some cases being reported each month, till some time in August. In the spring of the next year (1850) Surgeon McDougall again comments upon the evident disposition to diarrhœa, or typhoid prostration, although no epidemic prevailed. In July of that year cholera cases are again reported; and once more this disease reappears in May, June, and July, 1851. Two cases are reported in May, 1852, and seven in June, 1854. The original reports contain no notes respecting the character or treatment of this disease. In explanation of the frequent recurrence of cholera at this post, it may be remarked that it is used as a general depot of supplies, and as a starting-point or rendezvous for troops on the march to New Mexico and to the stations on the Great Plains. The reports show that the disease was brought with troops from St. Louis; most of the commands having suffered from this disease in ascending the Missouri."

Cholera again appeared at Fort Leavenworth in April, 1855, and continued to prevail in a greater or less degree till October following. The first death is reported on the 24th of April, the last on the 3d of October. Total number of cases, 115; deaths, 47. This disease also appeared at Fort Riley, Kansas, in July, 1855. That fort was then garrisoned by a very small detachment of the Sixth Infantry, numbering forty-seven only. In this small force there were twenty-one cases of cholera, and nine deaths. There were at the fort some hundreds of citizens, mechanics, employed in the construction of the buildings, who also suffered from this disease, but the files of this office exhibit nothing in relation to the numbers who sickened or died.

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	10,910		10,006		7,225		10,582		9,681			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	175	2	139	2	19	0	130	0	463	4	1 in 116	47.8
Catarrhus	1,207	0	563	1	431	1	1,237	0	3,438	2	1 in 1,719	355
Phthisis pulmonalis	6	13	10	2	13	4	7	2	36	21	1 in 1.7	3.7
Pleuritis	75	2	83	2	36	0	67	1	261	5	1 in 52	27
Pneumonia	58	7	54	8	30	2	67	7	209	24	1 in 8.7	21.5
All other diseases of this class	43	0	22	0	6	0	11	0	82	0	0 in 82	8.4
Total	1,564	24	871	15	535	7	1,519	10	4,489	56	1 in 80	463
Rheumatismus	392	0	346	0	204	0	363	0	1,305	0	0 in 1,305	134

The following remarks of Surgeon J. J. B. Wright, in relation to the troops serving on the Kansas boundary survey, under the command of Lieutenant Colonel J. E. Johnston, First Cavalry, in the summer of 1857, are copied from that officer's report of sick and wounded for the third quarter of that year:

"This command left Fort Leavenworth with a decided scorbutic diathesis, which developed itself more fully during the first month of the campaign. New cases continued to occur until late in September. Fortunately the command was supplied (to some little extent at the com-

mencement and more fully in September) with the desiccated vegetables, to the agency of which I am disposed to ascribe the entire eradication of the disease. The issues to the troops served the purpose of a preventive, whilst those made to the hospital cured all the cases that came under my notice except that of Private Brown, of F company, First Cavalry, whose death is here reported. I entertain a very favorable opinion of the value of desiccated vegetables on long marches and other circumstances where troops are deprived of fresh anti-scorbutic aliment, and would respectfully recommend that they be made a part of the regular ration of the soldier under the circumstances alluded to. One of the cases in the column 'vulnus sclopeticum' resulted in amputation of the fore and middle fingers of the right hand at the first phalanx, very near the hand. The luxations were two of the wrist (complete) and one of the elbow; the fracture that of the right clavicle. One of the teamsters was stabbed with a butcher-knife, which penetrated the liver to the extent of three inches. He recovered."

SANITARY REPORT—FORT LEAVENWORTH, KANSAS.

Surgeon John M. Cuyler: December, 1857.

Several causes have conspired to swell the sick report this quarter.

First. Most of the troops constituting the garrison (ten companies Fourth Artillery) came here, late in the fall, direct from Florida, where they had passed a summer engaged in the most harassing kind of field service, and subjected to great fatigue and exposure.

On arriving here nearly all of these troops were suffering more or less from the debilitating effects of a southern climate, and many were actually broken down by chronic diarrhœa and repeated attacks of intermittent fever. Added to all this they were compelled to remain in tents for over a month after reaching Fort Leavenworth, during some of the coldest weather we have had this season.

Second. The crowded state of the barracks or quarters rendering it almost impossible to keep them properly policed.

Third. The nature of the service which the troops have been required to perform in consequence of the excited and disturbed state of the Territory.

Fourth. The free and easy access to any quantity of ardent spirits, causing great intemperance and all its evil consequences.

Several cases of erysipelas occurred in the guard house, but the disease did not extend, as prompt measures were immediately taken to thoroughly cleanse and ventilate the building, with directions to have the rooms often whitewashed and daily aired.

The general police of the garrison is pretty good, better than it has been since I have been stationed here. Health and cleanliness render it imperative that some provision or arrangement be made which will enable the men to bathe in the winter season, when the streams are all frozen, and water rather difficult to be obtained. A proper place should be provided for the laundresses of the command, where all the washing may be done, and the dirty water conveyed out of the garrison.

SANITARY REPORT—FORT RILEY, KANSAS.

Assistant Surgeon R. H. Coolidge: June, 1857.

In the report on the medical topography of this post, as published in the last volume of Army Medical Statistics, Fort Riley is stated to be upon the "west bank of the Pawnee river." It would have been more correct to have given the position as being on the east bank of that stream, and such was probably the intention of the writer; but in fact it is situated upon a high plateau of prairie rising directly from the north (left) bank of the Kansas or Caw river, just below the point where that stream is formed by the junction of the Republican or Pawnee fork, flowing from the northwest, and the Smoky Hill fork, flowing from the southwest.

I have nothing of importance to add to the topography as given in the report referred to above.

In taking a retrospective view of the medical history of the troops at this station for the last six months, it is seen that few or no cases of sickness have arisen from local or climatic causes, from either the duties or employments of the troops, or from the nature of their barracks or hospital, both of which afford ample accommodations and are in excellent condition. *Intemperance* has been the fruitful cause of both diseases and injuries. The extent to which this vice prevailed may in part be inferred from the number of cases of *delirium tremens* reported. During the year previous to my joining this station, say from October 1, 1855, to September 30, 1856, *six* cases of delirium tremens are reported, the average strength of the command being 392. From October 1, 1856, to June 30, 1857, nine months, there occurred *sixteen* cases in a command averaging 335.

From the statements of convalescents and from other sources, I am satisfied that *three quarts* of whisky was the customary daily allowance of quite a number of the men; one quart, as they expressed it, being required "to set them up before breakfast." It appeared to me that larger quantities of opium were necessary in the treatment of these excessive drinkers than in ordinary cases of delirium tremens.

Four cases of scorbutus are reported in March, and others occurred among the hired men of the quartermaster's department. The timely issue of anti-scorbutics, made upon my representation, prevented the development of that disease. In this connection, I respectfully report that only 2.92 inches of rain have fallen here since the first day of April. During the corresponding months last year 7.97 inches of rain are recorded. The air has been unusually dry; there have been no dews; the mean difference between the thermometer and hygrometer for June has been: 7 A. M., 7.63°; 2 P. M., 15.84°; 9 P. M., 8.50°—mean for the month, 10.56°. In consequence of this long-continued drought, but more especially owing to the havoc caused by multitudes of grasshoppers and different species of worms, the gardens at this post, and for several miles in every direction, are hopelessly ruined, and the troops who may winter here must look to other sources for those vegetables which experience has shown to be necessary to the maintenance of health. The gardens at the mission, fifty miles eastward, are said to be in good condition, and it is probable that potatoes in sufficient quantity may be purchased there, but onions, if procurable at all, will be so only at very high rates.

Scarlatina and variola, which have prevailed to a very considerable extent in some of the eastern cities during the last winter, have also appeared here. Variola appeared on the 1st of April, was confined to the hired men of the quartermaster's department, and limited to three cases, all of which recovered. The subject of the first case had just returned from Fort Leavenworth, and the two subsequently attacked occupied the same tent with him at the time he sickened. Of the three cases, one was variola and two varioloid. These cases were treated in a hospital tent, pitched at a distance from any building, and all intercourse with the sick prohibited. The vaccine virus for which I applied on the 18th of February did not arrive until the 8th of May. I had fortunately obtained from Surgeon Abadie, at St. Louis, through Surgeon Cuyler, at Fort Leavenworth, part of a crust of vaccine virus, with which and its proceeds all the command, hired men, women, and children, who required protection were vaccinated. All adults who had not had variola, or who had not been vaccinated since puberty, were vaccinated. A partial record only of these cases was kept, and while I now regret my inability to give the precise number in which re-vaccination was followed with well-marked results, the instances were in much larger proportion than I expected.

This first case of scarlatina occurred on the 23d of May in the person of a dragoon. So far as I could learn no case had previously occurred in this vicinity, and though many trains of emigrants had passed this post, the soldier stated positively that he had not been near one of them. He had not been absent from this station. The disease was severe from the beginning,

attended with much cerebral disturbance, and an extremely sore mouth and throat. He had passed the febrile stage, and the period of desquamation was nearly completed, when he escaped from his ward one cool morning soon after daylight, and ran unclothed to the company gardens. Dropsy of the abdomen and anasarca supervened—the *left thigh* being the first to swell—which finally terminated in death. Hospital Steward Drennan, who had been exposed to the first case, was the next person attacked, and though for a time dangerously ill, he has now recovered. Several children at the post have sickened with this disease, and it is still occurring among them.

The surgical cases occurring up to the date of my special report of February 16, 1857, are sufficiently noted therein, and I have only to add in regard to one of those cases, that of gangrene of the feet requiring amputation of both legs, that it terminated favorably. The two luxations reported in May were satisfactorily reduced; one, caused by being thrown from a horse, was reduced on the drill ground by the officer and men present, and its precise character not known; the other, of the humerus in the axilla, was reduced in hospital.

A small party of emigrants were attacked on the 7th of June, about eighty miles from this post, by a band of Cheyennes. Four men were killed, two wounded, and one young woman severely wounded in the back and side. They made their way on foot to the nearest settlements, having been six days without food, except that afforded by a little game the first day. The wounded were conveyed from their first place of refuge to this post, and have since been attended by myself.

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN THE

MIDDLE DIVISION.

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER													
	Years	1839 to 1854		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	5,693.		297.		298.		378.		373.		426.		7,065.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	5												5	
	Febris inter. quotidiana	32				4		1						37	
	Febris intermittens tertiana	181		7		11		12		3		4		218	
	Febris intermittens quartana	9												9	
	Febris remittens	19	1											19	1
	Febris typhus et typhoides	2				1		1		1				5	
	Febris typhus icterodes	3												3	
Eruptive fevers	Erysipelas	3												3	
	Rubeola	8								2				10	
	Scarlatina														
	Variola	2	1					1				3		9	1
	Variolodes	8	1											8	1
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	121		6		3		6		1		16		153	
	Dysenteria acuta	58		3		1				1		2		65	
	Dysenteria chronica	6												6	
	Enteritis														
	Hepatitis acuta	1						2		4				7	
	Hepatitis chronica	1								1				2	
	Obstipatio	91				1		3		7		21		123	
	All other diseases	157	1	1		10		7		5		14		194	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	15												15	
	Catarrhus	669		18		31		11		22		32		846	
	Phthisis pulmonalis	1	2					1		3	1	1		5	4
	Pleuritis	22				1		1		1				25	
	Pneumonia	29	2							4		1		34	2
	All other diseases	21												21	
Diseases of the brain and nervous system.	Cephalalgia	13								4		7		24	
	Delirium tremens	16		3		2		1		2				24	
	Epilepsia	22										1		23	
	Neuralgia	9		1										10	
	All other diseases	13	4							1				14	4
Diseases of the urinary and genital organs.	Gonorrhœa	113		2		1		5		4		5		130	
	Stuctura urethræ	1												1	
	Syphilis primitiva	45		5		1		4		2		1		58	
	Syphilis consecutiva	13		1				3		3		5		25	
	All other diseases	44	1	3		2		2		2		2		55	1
Diseases of the serous and exhalent vessels.	Ascites	1												1	
	All other diseases	5	1											5	1
Diseases of the fibrous and muscular structures.	Pernio	6						3						9	
	Podagra	3												3	
	Rheumatismus	166		3		3		4		6		15		197	
Abscesses and ulcers	Fistula	3								1		1		5	
	Phlegmon et abscessus	100		4		12		10		8		11		145	
	Ulcus	47		11		2								60	
Wounds and injuries	Ambustio	10						6						16	
	Amputatio														
	Contusio	245	1	5		17		21		12		22		322	1
	Fractura	7								1		1		9	
	Luxatio	11	1			7								18	1
	Punctio					1								1	
	Sub luxatio	67		3		3		7		8		12		100	
	Vulnus incisum	54		1				2		1		4		62	
	Vulnus laceratum	13		1		1		1		5		2		23	
	Vulnus punctum	4								1				5	
	Vulnus sclopeticum	3												3	
Miscellaneous	Debilitas	7										1		8	
	Ebrietas	65	2	3		3		2		3		7		83	2
	Hæmorrhois	14		2		1		2				2		21	
	Hernia	13				1								14	
	Morbi cutis	14		2										16	
	Morbi oculi	40		2		2		4				1		49	
	Scorbutus	3												3	
	Suicidium														
	All other diseases	150	1	10		9		15		17		20		221	1
	Total	2,804	19	127		131	1	153		136	1	214		3,585	21

AMONG THE TROOPS AT POSTS IN THE MIDDLE ATLANTIC REGION.

CLASSES OF DISEASES.		SECOND QUARTER.												TOTAL.	
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	5,841.		489.		273.		446.		358.		420.		7,826.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	17												17	
	Febris inter. quotidiana	71										1		72	
	Febris intermittens tertiana	289		32		13		38		10		7		389	
	Febris intermittens quartana	20												20	
	Febris remittens	38		2								1		41	
	Febris typhus et typhoides	1										2		3	
	Febris typhus icterodes	2												2	
Eruptive fevers	Erysipelas	4		1		1								6	
	Rubeola	4												4	
	Scarlatina														
	Variola														
	Variolodes	2												2	
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	346		56		18		9		7		7		443	
	Dysenteria acuta	192		24		1				2		1		220	
	Dysenteria chronica	22	1											22	1
	Enteritis														
	Hepatitis acuta	10						4		1				15	
	Hepatitis chronica	8												8	
	Obstipatio	195		13		6		9		11		7		241	
	All other diseases	203	1	33		15		10		21		9		291	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	18	1											18	1
	Catarrhus	361		63		15		18		30		31		521	
	Phthisis pulmonalis	3	5							1				4	5
	Pleuritis	22		4		6		1						33	
	Pneumonia	15		1						4		1	1	21	1
	All other diseases	9						1						10	
Diseases of the brain and nervous system.	Cephalalgia	32		2		6				6		4		50	
	Delirium tremens	14	3	1				2		3				20	3
	Epilepsia	4												4	
	Neuralgia	8				1						1		10	
	All other diseases	23			1	3				1		1		28	1
Diseases of the urinary and genital organs.	Gonorrhœa	112		8		3		12		4		8		147	
	Strictura urethræ	1												1	
	Syphilis primitiva	58		2				2		2		4		68	
	Syphilis consecutiva	9		1				1				2		13	
	All other diseases	47	1	3								2		52	1
Diseases of the serous and exhalent vessels.	Ascites	2	1											2	1
	All other diseases	3	1											3	1
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra	1												1	
	Rheumatismus	170		19		9		5		12		9		224	
Abscesses and ulcers	Fistula	1								1		1		3	
	Phlegmon et abscessus	109		8		8		15	1	11		9		160	1
	Ulcus	74		6		2		1						83	
Wounds and injuries	Ambustio	5		6	1	4		1		1		3		20	1
	Amputatio	1												1	
	Contusio	268		36	1	18		28		18		23		391	1
	Fractura	9		1		1		2				1		14	
	Luxatio	13												13	
	Punitio														
	Sub luxatio	70		8		4		5		5		9		101	
	Vulnus morsum	38		3		4		4		3		6		58	
	Vulnus laceratum	11		2		1		3		3		3		23	
	Vulnus punctum	8						2				1		11	
	Vulnus sclopeticum	4		1				1						6	
Miscellaneous	Debilitas	12		2				1						15	
	Ebrietas	34		2		5		5		3		6		55	
	Hæmorrhois	12		1		1		2				3		19	
	Hernia	9		1				2				1		13	
	Morbi cutis	12		1						3		2		18	
	Morbi oculi	47		11				4		2		5		69	
	Scorbutus	3												3	
	Suicidium	1	1											1	1
	All other diseases	186	2	19		8		13	1	8		12		246	3
	Total	3,266	17	373	3	153		201	2	173		183	1	4,349	23

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1854 to 1858		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,940.		873.		260.		404.		522.		363.		9,362.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris ecthematica communis	32												32	
	Febris inter quotidiana	180		2		2		1						185	
	Febris intermittens tertiana	417		46		4		21		5		7		500	
	Febris intermittens quartana	28												28	
	Febris remittens	263	3	6				1						270	3
	Febris typhus et typhoides	6		2						1				8	
	Febris typhus icterodes	11	36							3	3			6	39
Eruptive fevers	Erysipelas	1				1						2	1	7	1
	Rubeola	2						1						3	
	Scarlatina									1				1	
	Varicella														
	Variolodes	2												2	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	983	15	145		18		18		25		18		1,209	15
	Dysenteria acuta	353	2	16				1		2		1		363	2
	Dysenteria chronica	10	2	2										12	2
	Enteritis														
	Hepatitis acuta	1												1	
	Hepatitis chronica	2												2	
	Obstipatio	184		36		9		13		7		15		264	
	All other diseases	384	1	50		20		31		11		24		487	1
Diseases of the respiratory system.	Bronchitis acuta et chronica	16												16	
	Catarrhus	486		130		21		21		33		15		706	
	Phthisis Pulmonalis	5	2	2	2					2		2		11	4
	Pleuritis	23		2		3		1						29	
	Pneumonia	6				1	1			1				8	1
	All other diseases	10		1		1		2				1		15	
Diseases of the brain and nervous system.	Cephalalgia	29				6		2		8		4		49	
	Delirium tremens	21	2	1		1				3		2		28	2
	Epilepsia	14								1		1		16	
	Neuralgia	23		4		1								28	
	All other diseases	26	1	2	1			1				1		30	2
Diseases of the urinary and genital organs.	Gonorrhœa	131		2		3		8		5		3		152	
	Stricture urethræ	1												1	
	Syphilis primitiva	94		2		5		17		1		4		123	
	Syphilis consecutiva	11		1				4						16	
	All other diseases	49		2		2		4		2		1		60	
Diseases of the serous and exhalent vessels.	Ascites	2												2	
	All other diseases	1	1											1	1
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	163	1	44				3		4		15		229	1
Abscesses and ulcers	Fistula	2												2	
	Phlegmone et abscessus	293		38		11		30		17		10		329	
	Ulcus	105		8		2								113	
Wounds and injuries	Ambustio	11				2						1		14	
	Amputatio	1												1	
	Contusio	256		27		21		18		32		18		352	
	Fractura	11		2				1				1		15	
	Luxatio	9												9	
	Punctio	4												4	
	Subluxatio	51		4		9		10		12		7		93	
	Vulnus incisum	54		8		4		5		5		2		78	
	Vulnus laceratum	21		1		1		6				1		29	
	Vulnus punctum	6				2		2						10	
	Vulnus sclopeticum	3		1						1				5	
Miscellaneous	Delalitas	41		1						1				43	
	Ebrietas	52		4		5		1		6		6		71	
	Hemorrhois	19		7		2		2		1		6		40	
	Hernia	17								1		1		19	
	Morbi cutis	10						2				1		13	
	Morbi oculi	54		24		2		3		3				82	
	Scorbutus	2		1										3	
	Suicidium											1	1	1	1
	All other diseases	187	1	54		5		6		17		18		287	1
	Total	5,078	67	663	3	164	1	236		214	3	189	2	6,544	76

AMONG THE TROOPS AT POSTS IN THE MIDDLE ATLANTIC REGION.

FOURTH QUARTER.

CLASSES OF DISEASES.	Years	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	6,723.		906.		237.		384.		403.		421.		9,074.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	12	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....
	Febris inter. quotidiana	85	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	90	.....
	Febris intermittens tertiana	333	.....	46	.....	13	.....	10	.....	5	.....	10	.....	117	.....
	Febris intermittens quartana	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	.....
	Febris remittens	51	1	4	.....	.....	.....	2	.....	.....	.....	.....	.....	57	1
	Febris typhus et typhoides	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
	Febris typhus retrodosa	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Eruptive fevers	Erysipelas	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Rubeola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	218	1	49	.....	8	.....	7	.....	18	.....	13	.....	313	1
	Dysenteria acuta	125	2	12	1	.....	.....	3	.....	1	.....	.....	.....	141	3
	Dysenteria chronica	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Enteritis	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Hepatitis acuta	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
	Hepatitis chronica	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Obstipatio	89	.....	29	.....	.....	.....	6	.....	5	.....	8	.....	128	.....
	All other diseases	166	.....	34	.....	9	.....	2	.....	4	.....	11	.....	226	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	17	.....	3	.....	.....	.....	.....	.....	1	.....	.....	.....	21	.....
	Catarrhus	484	.....	148	.....	7	.....	35	.....	37	.....	48	.....	759	.....
	Phthisis pulmonalis	7	5	1	.....	.....	.....	.....	.....	.....	.....	1	.....	8	6
	Pleuritis	18	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	19	.....
	Pneumonia	11	.....	1	1	1	.....	.....	.....	1	1	.....	1	14	3
	All other diseases	10	2	1	.....	.....	.....	.....	.....	.....	.....	1	.....	12	2
Diseases of the brain and nervous system.	Cephalalgia	15	.....	15	.....	1	.....	4	.....	2	.....	4	.....	41	.....
	Delirium tremens	22	1	1	.....	.....	.....	.....	.....	3	.....	1	.....	27	1
	Epilepsia	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	12	.....
	Neuralgia	11	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	13	.....
	All other diseases	13	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	1
Diseases of the urinary and genital organs.	Gonorrhœa	111	.....	5	.....	6	.....	3	.....	7	.....	8	.....	140	.....
	Stricture urethræ	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Syphilis primitiva	92	.....	6	.....	3	.....	2	.....	2	.....	9	.....	114	.....
	Syphilis consecutiva	10	.....	2	.....	.....	.....	1	.....	2	.....	.....	.....	15	.....
	All other diseases	33	.....	7	.....	.....	.....	.....	.....	6	.....	1	.....	47	.....
Diseases of the serous and exhalent vessels.	Ascites	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	2	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	4	.....
Diseases of the fibrous and muscular structures.	Perino	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	160	.....	38	.....	4	.....	9	.....	8	.....	6	.....	225	.....
Abscesses and ulcers	Fistula	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	129	.....	28	.....	8	.....	2	.....	11	.....	9	.....	187	.....
	Ulcus	72	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	80	.....
Wounds and injuries	Ambustio	11	.....	2	.....	2	.....	1	.....	3	.....	.....	.....	19	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	272	.....	60	.....	21	.....	13	.....	18	.....	10	.....	394	.....
	Fractura	7	.....	5	.....	2	.....	.....	.....	.....	.....	1	.....	15	.....
	Luxatio	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	5	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	60	.....	7	.....	2	.....	8	.....	6	.....	9	.....	92	.....
	Vulnus morsum	62	1	2	.....	2	.....	1	.....	3	.....	4	.....	74	1
	Vulnus lacceratum	24	.....	1	.....	2	.....	3	.....	2	.....	2	.....	34	.....
	Vulnus punctum	11	.....	1	.....	3	.....	1	.....	1	.....	.....	.....	17	.....
	Vulnus sclopeticum	3	.....	2	1	1	.....	.....	.....	.....	.....	1	.....	7	1
Miscellaneous	Debilitas	7	.....	2	.....	5	.....	.....	.....	.....	.....	1	.....	15	.....
	Ebrietas	44	.....	.....	.....	.....	.....	.....	.....	6	.....	5	.....	55	.....
	Hæmorrhois	16	.....	8	.....	.....	.....	1	.....	4	.....	4	.....	33	.....
	Hernia	5	.....	2	.....	.....	.....	.....	.....	.....	.....	1	.....	8	.....
	Morbi cutis	12	.....	4	.....	.....	.....	1	.....	.....	.....	2	.....	19	.....
	Morbi oculi	39	.....	11	.....	3	.....	1	.....	3	.....	.....	.....	57	.....
	Scorbutus	2	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	179	.....	25	.....	8	.....	9	.....	10	.....	14	.....	245	.....
	Total	3,114	14	880	4	113	.....	128	.....	170	2	186	1	4,291	21

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEAR	1839 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,408.		362.		170.		296.		445.		390.		3,171.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	10						1		3		2		16	
	Febris intermittens quotidiana	6		39		3								48	
	Febris intermittens tertiana	55		6		11		5		17		5		79	
	Febris intermittens quartana	6												6	
	Febris remittens	18												18	
	Febris typhus et typhoides	9	1											9	1
	Febris typhus gravior														
	Erysipelas	7								4		3		14	
Eruptive fevers	Rubeola	1												1	
	Scarlatina	4												4	
	Variola	3								3				6	
	Varicella	5												5	
	Cholera Asiatica	1												1	
Diseases of the organs connected with the digestive system.	Diarrhœa	90		16		9		16		69		43		243	
	Dysentera acuta	9		2				4				2		17	
	Dysentera chronica					1								1	
	Enteritis									1	1			1	1
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	57		19		2				5		8		91	
	All other diseases	166		8		12		11		35		23		255	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	87				1		2		55		6		153	
	Catarrhus	182		107		20		34		4		105		525	
	Phthisis pulmonalis	2	1		1	1		1					2	4	4
	Pleuritis	24		1						2				27	
	Pneumonia	17	3	5		2		3				3		26	3
	All other diseases											1		1	
Diseases of the brain and nervous system.	Cephalitis	15		2				2		4		2		25	
	Delirium tremens	8	2	1		1	1					2		12	3
	Epilepsia	11		4										15	
	Neuralgia	5		1		1		1				3		11	
	All other diseases	2	1					3						5	1
Diseases of the urinary and genital organs.	Gonorrhœa	20		1		2		1		21		4		49	
	Stricturæ urethræ	5												5	
	Syphilis primitiva	2		1		1		3		2		1		10	
	Syphilis consecutiva	3	1							1		1		5	1
	All other diseases	1		3		1				3		2		10	
Diseases of the serous and exhalent vessels.	Ascites											1		1	
	All other diseases									1				1	
Diseases of the fibrous and muscular structures.	Pertussis	4		4				19		3				30	
	Podagra														
	Rheumatismus	66		15		1		6		11		7		106	
	Fistula	1												1	
Abscesses and ulcers	Phlegmon et abscessus	71		12		5		13		20		23		144	
	Ulcus	33				1		1		12		28		75	
	Ambustio	1		2								2		5	
Wounds and injuries	Amputatio														
	Contusio	174		33		11		11		49		32	1	310	1
	Fractura	6										1		7	
	Luxatio	1		1				2						4	
	Punctio														
	Sub luxatio	18		6				1		5		16		46	
	Vulnus incisum	21						2		6		4		33	
	Vulnus laceratum	69						1		6		11		81	
	Vulnus punctum	5		1				1		1				6	
	Vulnus sclopeticum	12												12	
Miscellaneous	Debilitas			1		4				1		1		7	
	Ebrietas	1	1	9						4		4	1	18	2
	Hæmorrhoides	11				1		1		1		2		16	
	Hernia	1												1	
	Morbi cutis	3		1						3		3		10	
	Morbi oculi	23		3		3		1		5		1		38	
	Scrofula	2												2	
	Suppuratio														
	All other diseases	87	1	13		4		3		15		14		166	1
	Total	1,359	11	359	1	100	1	146		478	1	428	4	2,831	18

AMONG THE TROOPS AT POSTS IN THE MIDDLE INTERIOR REGION—EAST.

CLASSES OF DISEASES.	SECOND QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2.309.		440.		216.		234.		451.		418.		4.068.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	11	.....	.....	.....	1	.....	1	.....	3	.....	1	.....	17	.....
	Febris inter. quotidiana	20	.....	64	.....	2	.....	.....	.....	.....	.....	.....	.....	86	.....
	Febris intermittens tertiana	62	.....	15	.....	11	.....	3	.....	23	.....	4	.....	118	.....
	Febris intermittens quartana	3	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	7	.....
	Febris remittens	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43	.....
	Febris typhus et typhoides	16	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	2
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	3	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....	6	.....
	Rubeola	7	.....	.....	.....	.....	.....	10	.....	2	.....	.....	.....	19	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	213	.....	46	1	11	.....	30	.....	37	.....	35	.....	362	1
	Dysenteria acuta	32	.....	28	.....	1	.....	1	.....	.....	.....	.....	.....	62	.....
	Dysenteria chronica	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	87	.....	13	.....	.....	.....	3	.....	10	.....	3	.....	116	.....
	All other diseases	93	.....	24	.....	7	.....	11	.....	37	.....	19	.....	191	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	3	.....	.....	.....	.....	.....	1	.....	16	.....	9	.....	29	.....
	Catarrhus	133	.....	27	.....	8	.....	12	.....	53	.....	43	.....	276	.....
	Phthisis pulmonalis	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Pleuritis	9	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
	Pneumonia	24	1	.....	.....	4	1	.....	.....	1	1	1	.....	30	3
	All other diseases	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	6	.....
Diseases of the brain and nervous system.	Cephalalgia	40	.....	.....	.....	4	.....	2	.....	4	.....	10	.....	60	.....
	Delirium tremens	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Epilepsia	4	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	7	.....
	Neuralgia	7	.....	.....	.....	.....	.....	.....	.....	2	.....	3	.....	12	.....
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the urinary and genital organs.	Gonorrhœa	30	.....	12	.....	2	.....	5	.....	15	.....	14	.....	78	.....
	Strictura urethræ	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Syphilis primitiva	3	.....	2	.....	.....	.....	2	.....	8	.....	8	.....	23	.....
	Syphilis consecutiva	3	.....	1	.....	.....	.....	.....	.....	3	.....	2	.....	9	.....
	All other diseases	8	.....	2	.....	.....	.....	.....	.....	2	.....	1	.....	13	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	1	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	4	.....
Diseases of the fibrous and muscular structures.	Pernio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	58	1	21	.....	9	.....	11	.....	6	.....	12	.....	117	1
Abscesses and ulcers	Fistula	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Phlegmon et abscessus	65	.....	11	.....	9	.....	9	.....	13	.....	24	.....	131	.....
	Ulcus	24	.....	6	.....	.....	.....	3	.....	5	.....	33	.....	71	.....
Wounds and injuries	Ambustio	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....	3	.....
	Amputatio	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
	Contusio	183	.....	22	.....	7	.....	12	.....	32	.....	28	.....	284	.....
	Fractura	2	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	4	.....
	Luxatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Punitio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	19	.....	7	.....	.....	.....	5	.....	8	.....	19	.....	58	.....
	Vulnus incisum	25	.....	5	.....	1	.....	3	.....	3	.....	3	.....	40	.....
	Vulnus lacceratum	75	1	5	.....	.....	.....	1	.....	3	.....	8	.....	92	1
	Vulnus punctum	8	.....	1	.....	1	1	1	.....	2	1	1	.....	14	2
	Vulnus sclopeticum	9	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	11	.....
Miscellaneous	Debilitas	10	.....	6	.....	.....	.....	1	.....	3	.....	3	.....	23	.....
	Ebrietas	2	.....	1	.....	1	.....	.....	.....	4	.....	3	.....	11	.....
	Hæmorrhois	16	.....	1	.....	2	.....	.....	.....	2	.....	.....	.....	21	.....
	Hernia	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Morbi cutis	1	.....	3	.....	.....	.....	1	.....	4	.....	2	.....	11	.....
	Morbi oculi	12	.....	15	.....	3	.....	4	.....	5	.....	3	.....	42	.....
	Scorbutus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	83	.....	18	.....	3	.....	4	.....	29	.....	25	.....	162	.....
	Total	1,478	6	369	1	89	2	136	.....	362	2	326	.....	2,551	11

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER													
	YEARS	1839 to 1851.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,773.		599.		141.		169.		465.		185.		4,332.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	7										1		8	
	Febris mitis quotidiana	89		14										174	
	Febris intermittens tertiana	52		38		8		10		23		9		140	
	Febris intermittens quartana			1										1	
	Febris remittens	99		1	1							3		103	1
	Febris typhus et typhoides	3												3	
	Febris typhus ictiodes														
Eruptive fevers	Erysipelas	3								1				4	
	Rubeola														
	Scarlatina	1												1	
	Variola														
	Varicella														
Diseases of the organs connected with the digestive system.	Cholera Asiatica	11	3											11	3
	Diarrhœa	476		359	1	93		48		103		20		1,099	1
	Dysentery acuta	135	1	50		23		6						219	1
	Dysenteria chronica	2												2	
	Enteritis	1												4	
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	38		12				3		13		2		68	
	All other diseases	182	2	50		2		6		30		26		296	2
Diseases of the respiratory system	Bronchitis, acuta et chronica	1		25						23				49	
	Catarrhus	98		61				7		14		6		216	
	Phthisis pulmonalis	1	1							1				2	1
	Pleuritis	9		1								1		11	
	Pneumonia	14	1											14	1
	All other diseases											1		1	
Diseases of the brain and nervous system.	Cephalalgia	36		30		1		4		5		3		79	
	Delirium tremens	12	1					1	1					13	2
	Epilepsia	6		1						1				8	
	Neuralgia	9								5				14	
	All other diseases	3		2						1				6	
Diseases of the urinary and genital organs.	Gonorrhœa	51		15		2				28		4		100	
	Stricturæ urethræ	3												3	
	Syphilis primitiva	32		1		2		6		14		3		58	
	Syphilis consentiva	1		1				2		1		2		7	
	All other diseases	19		5		1		1		5				22	
Diseases of the serous and exhalent vessels	Ascites														
	All other diseases	2	2	1				1						4	2
Diseases of the fibrous and muscular structures.	Pertussis														
	Podagra														
	Rheumatismus	45		38		3		4		8		7		105	
Abscesses and ulcers	Fistula	1												1	
	Phlegmone et bubo	107	1	32		12		8		38		8		205	1
	Ulcus	46		4		3		3		15		7		78	
Wounds and injuries	Amputatio	1						1		1				3	
	Amputatio														
	Contusio	201		28		6		19		31		19		304	
	Fractura	7												7	
	Luxatio	3								1				4	
	Punctio			1										1	
	Subluxatio	42		21				2		5		3		73	
	Vulnus incisum	33		7		2				4		2		48	
	Vulnus lacerum	47		6				1		6		9		69	
	Vulnus punctum	3		1								1		5	
	Vulnus sclopeticum	14	1											14	1
Miscellaneous	Debilitas	7		19	1	1		3		19		3		52	1
	Ebrietas	7		2	1					1				10	1
	Hæmorrhois	16		3						2		1		22	
	Hernia	3		2										5	
	Morbi cutis			6								3		9	
	Morbi oculi	26		12		1		3		8				50	
	Scorbutus			2										2	
	Suicidium	1	1							1	1			2	2
	All other diseases	128		57		4		4		24		7		224	
	Total	2,118	14	1,103	1	94		143	1	512	1	151		4,123	20

AMONG THE TROOPS AT POSTS IN THE MIDDLE INTERIOR REGION—EAST.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,334.		20.		309.		243.		525.		214.		3,645.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	24	.....	.....	.....	1	.....	3	.....	1	.....	.....	.....	29	.....
	Febris inter. quotidiana	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29	.....
	Febris intermittens tertiana.	62	1	.....	.....	12	.....	7	.....	10	.....	7	.....	98	1
	Febris intermittens quartana	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Febris remittens	37	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37	3
	Febris typhus et typhoides.	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17	.....
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	1	.....	.....	.....	.....	.....	.....	.....	3	.....	1	.....	5	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Variola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	179	.....	.....	.....	73	.....	55	.....	79	.....	20	.....	406	.....
	Dysenteria acuta	31	.....	.....	.....	4	.....	2	.....	8	.....	.....	.....	48	.....
	Dysenteria chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Enteritis	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio	68	.....	.....	.....	.....	.....	.....	.....	14	.....	2	.....	84	.....
	All other diseases	83	1	1	.....	15	.....	11	.....	17	1	14	.....	141	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	14	.....	.....	.....	1	.....	.....	.....	21	.....	.....	.....	36	.....
	Catarrhus	167	.....	.....	.....	19	.....	29	.....	90	.....	24	.....	329	.....
	Phthisis pulmonalis	.....	1	.....	.....	.....	.....	1	.....	1	.....	.....	.....	2	1
	Pleuritis	17	.....	.....	.....	2	1	.....	.....	.....	.....	1	.....	20	1
	Pneumonia	7	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	9	.....
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
Diseases of the brain and nervous system.	Cephalalgia	23	.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	26	.....
	Delirium tremens	10	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	12	.....
	Epilepsia	14	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	1
	Neuralgia	11	.....	.....	.....	.....	.....	2	.....	2	.....	1	.....	16	.....
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
Diseases of the urinary and genital organs.	Gonorrhœa	47	.....	.....	.....	7	.....	8	.....	15	.....	4	.....	81	.....
	Stricture urethræ	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Syphilis primitiva	37	.....	.....	.....	7	.....	8	.....	10	.....	3	.....	65	.....
	Syphilis consecutiva	2	.....	.....	.....	.....	.....	1	.....	1	.....	2	.....	6	.....
	All other diseases	9	.....	.....	.....	2	.....	1	.....	2	.....	2	.....	16	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	59	.....	1	.....	7	.....	2	.....	6	.....	3	.....	71	.....
Abscesses and ulcers	Fistula	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	86	.....	1	.....	13	.....	6	.....	38	.....	8	.....	152	.....
	Ulcus	18	.....	.....	.....	2	.....	3	.....	25	.....	4	.....	52	.....
Wounds and injuries	Ambustio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	116	1	.....	.....	19	.....	11	.....	33	.....	22	.....	201	1
	Fractura	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	9	.....
	Luxatio	2	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	5	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	22	.....	.....	.....	1	.....	1	.....	14	.....	4	.....	42	.....
	Vulnus incisum	28	.....	.....	.....	1	.....	1	.....	3	.....	3	.....	36	.....
	Vulnus lacceratum	39	.....	.....	.....	1	.....	.....	.....	2	.....	10	.....	52	.....
	Vulnus punctum	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Vulnus sclopeticum	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	.....
Miscellaneous	Debilitas	4	.....	.....	.....	4	.....	1	.....	1	.....	.....	.....	10	.....
	Ebrietas	4	.....	.....	.....	4	1	.....	.....	2	.....	1	.....	11	1
	Hæmorrhois	10	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	12	.....
	Hernia	2	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	4	.....
	Morbi cutis	2	.....	.....	.....	.....	.....	.....	.....	4	.....	1	.....	7	.....
	Morbi oculi	18	.....	.....	.....	4	.....	7	.....	5	.....	2	.....	36	.....
	Scorbutus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	91	.....	2	.....	6	.....	11	.....	30	.....	6	.....	149	.....
	Total	1,420	8	5	.....	210	2	176	.....	441	1	153	.....	2,405	11

No. 3.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEARS	1848 to 1854		1855		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,422.		356.		162.		192.		245.		262.		2,669.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	1								2				3	
	Febris inter. quotidiana	114		32		8		27		14		10		205	
	Febris intermittens tertiana	51		6		3		3		6		1		70	
	Febris intermittens quartana														
	Febris remittens	13								1				14	
	Febris typhus et typhoides	29		3										33	
	Febris typhus ataxodes														
Eruptive fevers	Erysipelas	16	5							1				17	5
	Rubeola	12								10				22	
	Scarlatina														
	Variola	10	4	4										14	4
	Varioloides	5		2				1						8	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	67	2	20	1	14		22		17		9		149	3
	Dysenteria acuta	9	1	3				2		1				15	1
	Dysenteria chronica	1												1	
	Enteritis	2												2	
	Hepatitis acuta														
	Hepatitis chronica	3												3	
	Obstipatio	30		14		4		6		7		2		63	
	All other diseases	47		10		2		18		19		3		99	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	19						2		9		5		35	
	Catarrhus	96		99		13		32		53		29		322	
	Phthisis pulmonalis	1	1	1	1									2	2
	Pleuritis	17		5		4				1				27	
	Pneumonia	68	1	4	2			2		6				80	6
	All other diseases	2				1				1				4	
Diseases of the brain and nervous system.	Cephalalgia	3												3	
	Delirium tremens	5	1											5	1
	Epilepsia	1												4	
	Neuralgia	3		1		4		2		1		2		13	
	All other diseases	4										1		5	
Diseases of the urinary and genital organs.	Gonorrhœa	16		2		2		3		3				26	
	Stricture urethræ	2		1										3	
	Syphilis primitiva	8		1				3				2		14	
	Syphilis consecutiva	15		1				1						17	
	All other diseases					1		1		1				3	
Diseases of the serous and cabalent vessels.	Ascites														
	All other diseases														
Diseases of the fibrous and muscular structures.	Pertus									2				2	
	Podagra									2				2	
	Rheumatismus	22		1		1		5		6		7		42	
Abscesses and ulcers	Fistula	3												3	
	Phlegmon et abscessus	24		14		1		4		6		4		53	
	Ulcus	7		3				1		2				13	
Wounds and injuries	Ambustio	1	1					1						2	1
	Amputatio														
	Contusio	14		2		5		5		4		8		38	
	Fractura														
	Luxatio	1												1	
	Punctio														
	Subluxatio	6		1		1		5		1		1		21	
	Vulnus morsum	13		1		1		1		4				20	
	Vulnus laceratum	5						3		1		1		10	
	Vulnus punctum	1		2						1				4	
	Vulnus sclopeticum	2		1										3	
Miscellaneous	Debilitas	2												2	
	Ebrietas	7		5		2		5		7		3		29	
	Hæmorrhois	2												2	
	Hernia														
	Morbi cutis	18						4		2		2		26	
	Morbi oculi	29		2		1		1		4		1		29	
	Scorbutus							1						1	
	Suicidium														
	All other diseases	24		16		5		8		5		3		61	
	Total	846	19	260	4	73		169		200		97		1,645	23

AMONG THE TROOPS AT NEWPORT BARRACKS, KENTUCKY.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1847 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,395.		282.		153.		123.		307.		138.		2,398.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Febris inter. quotidiana	151	.....	35	.....	26	.....	19	.....	32	.....	10	.....	273	.....
	Febris intermittens tertiana	35	.....	10	.....	7	.....	1	.....	13	.....	3	.....	69	.....
	Febris intermittens quartana	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Febris remittens	34	1	.....	.....	2	.....	1	.....	.....	.....	.....	.....	37	1
	Febris typhus et typhoides	18	1	3	.....	1	.....	.....	.....	1	.....	.....	.....	23	4
	Febris typhus heterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	2
	Rubeola	22	1	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	24	4
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
	Variolodes	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	95	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	95	4
	Diarrhœa	141	.....	79	.....	13	.....	28	.....	53	.....	8	.....	322	.....
	Dysenteria acuta	16	2	2	.....	.....	.....	1	.....	3	.....	.....	.....	22	2
	Dysenteria chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Enteritis	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis acuta	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	31	.....	24	.....	3	.....	5	.....	11	.....	2	.....	76	.....
	All other diseases	50	2	20	.....	12	.....	7	.....	16	.....	4	.....	109	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	11	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	13	.....
	Catarrhus	21	.....	24	.....	10	.....	2	.....	7	.....	6	.....	70	.....
	Phthisis pulmonalis	3	2	.....	.....	.....	.....	.....	.....	1	1	.....	.....	4	3
	Pleuritis	12	.....	5	.....	1	.....	1	.....	.....	.....	.....	.....	19	.....
	Pneumonia	23	2	4	.....	2	.....	.....	.....	3	.....	.....	.....	32	2
	All other diseases	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4	.....
Diseases of the brain and nervous system.	Cephalalgia	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Delirium tremens	9	1	.....	.....	2	1	1	.....	1	.....	.....	.....	13	2
	Epilepsia	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Neuralgia	2	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....	6	.....
	All other diseases	1	.....	2	.....	.....	.....	1	.....	1	.....	.....	.....	5	.....
Diseases of the urinary and genital organs.	Gonorrhœa	10	.....	5	.....	1	.....	2	.....	5	.....	.....	.....	23	.....
	Stricture urethræ	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis primitiva	4	.....	3	.....	2	.....	4	.....	1	.....	.....	.....	14	.....
	Syphilis consecutiva	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	All other diseases	8	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	11	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	25	.....	5	.....	3	.....	4	.....	5	.....	2	.....	44	.....
Abscesses and ulcers	Fistula	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Phlegmon et abscessus	46	.....	10	.....	1	.....	5	.....	10	.....	5	.....	77	.....
	Ulcus	23	.....	1	.....	.....	.....	.....	.....	1	.....	2	.....	27	.....
Wounds and injuries	Ambustio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	15	.....	2	.....	3	.....	3	.....	11	.....	.....	.....	34	.....
	Fractura	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Luxatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Punitio	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	5	.....
	Sub-luxatio	13	.....	5	.....	1	.....	4	.....	4	.....	3	.....	30	.....
	Vulnus morsum	7	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	10	.....
	Vulnus laceratum	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	6	.....
	Vulnus punctum	3	.....	2	.....	.....	.....	.....	.....	2	.....	.....	.....	7	.....
	Vulnus sclopeticum	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
Miscellaneous	Debilitas	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Ebrietas	16	.....	1	.....	2	.....	.....	.....	4	.....	1	.....	24	.....
	Hæmorrhois	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hernia	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Morbi cutis	23	.....	.....	.....	1	.....	1	.....	4	.....	4	.....	33	.....
	Morbi oculi	26	.....	1	.....	4	.....	.....	.....	8	.....	4	.....	43	.....
	Scorbutus	.....	.....	7	.....	.....	.....	.....	.....	1	.....	.....	.....	8	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	19	.....	27	.....	8	.....	4	.....	2	.....	4	.....	64	.....
	Total	957	25	282	.....	107	1	101	.....	207	1	63	.....	1,717	27

No. 3.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1847 to 1856.		1856.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,455.		265.		214.		140.		195.		98.		2,367.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fever	Febris continua communis														
	Febris intermittens quotidiana	184		31		10		9		35		4		273	
	Febris intermittens tertiana	30		12		4		2		19		2		69	
	Febris intermittens quartana	11												11	
	Febris remittens	23		29				1		1				60	
	Febris typhi et typhoides	17	1	3										20	1
	Febris typhus heteroides	4												4	
	Erysipelas	35	1											35	1
	Anthrax														
Eruptive fevers	Scarlatina														
	Varicella														
	Variolodes														
	Cholera Asiatica	119	10											119	10
	Diarrhœa	247	5	80		11		36		31		7		462	5
	Dysenteria acuta	49		2		6		2		3		1		63	
Diseases of the organs connected with the digestive system.	Dysenteria chronica	1												1	
	Enteritis	6												6	
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	48		16		5		4		1				74	
	All other diseases	80		11	1	12		14		10		1		128	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	6						2						8	
	Catarrhus	14		2		11		8		4		1		40	
	Phthisis pulmonalis	1	1							1				2	1
	Pleuritis	13		1										14	
	Pneumonia	1												1	
	All other diseases	4		1										5	
Diseases of the brain and nervous system.	Cephalalgia	2												2	
	Delirium tremens	8				1		1				1		11	
	Epilepsia	7												7	
	Neuralgia	5		1						1				7	
	All other diseases	5	1											5	1
Diseases of the urinary and genital organs.	Gonorrhœa	14		6		2				6				28	
	Stricture urethræ	2												2	
	Syphilis primitiva	5		1		1		4		1		2		14	
	Syphilis consecutiva	8								1				9	
	All other diseases	4		1										5	
Diseases of the serous and exhalent vessels.	Ascites	1												1	
	All other diseases			1	1									1	1
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	16		8		5		5		1		1		36	
	Fistula														
Abscesses and ulcers	Phlegmon et abscessus	45		19		2		9		5		1		81	
	Ulcus	20				3		2				1		31	
	Ambustio	2		1								2		5	
	Amputatio														
Wounds and injuries	Contusio	13		3		3		4		2				25	
	Fractura	3	1											3	1
	Luxatio	2				1								3	
	Punctio														
	Sub luxatio	12		2		4				1				19	
	Vulnus morsum	17				1		1		2				19	
	Vulnus laceratum	5				2				2		2		11	
	Vulnus punctum	3		2		1				1				7	
	Vulnus sclopetum														
Miscellaneous	Debilitas	5												5	
	Ebrietas	11						6	1	1				21	1
	Hæmorrhois	1						1		1				3	
	Hernia	7		1										8	
	Morbi cutis	9		1				1		2				13	
	Morbi oculi	17		2		2				3				24	
	Scorbutus	2		1										3	
	Suicidium														
	All other diseases	42		23		8		4		3		3		83	
	Total	1,268	20	261	2	125		119	1	141		33		1,887	24

AMONG THE TROOPS AT NEWPORT BARRACKS, KENTUCKY.

FOURTH QUARTER.

CLASSES OF DISEASES.	Years	1847 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	1,546.		214.		115.		246.		245.		129.		2,595.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis														
	Febris inter. quotidiana	187		46		16		54		39		4		346	
	Febris intermittens tertiana	6		11		2		11		3		2		35	
	Febris intermittens quartana	3												3	
	Febris remittens	12		6		2								20	
	Febris typhus et typhoides	23	3	1										24	3
	Febris typhus heterodes	1												1	
Eruptive fevers	Erysipelas	7				1						1		9	
	Rubeola	37	1											37	1
	Scarlatina	5												5	
	Variola														
	Varicelloides	1												1	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	17	2											17	2
	Diarrhœa	147		29	1	17		38		26		1		258	1
	Dysenteria acuta	21	1					3		2		2		28	1
	Dysenteria chronica		1												1
	Enteritis	2												2	
	Hepatitis acuta	1												1	
	Hepatitis chronica														
	Obstipatio	26		6		2		1		1				36	
	All other diseases	31	1	6		11		20		8		1		77	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	10				1		3		3		1		18	
	Catarrhus	74		22		12		35		64		5		212	
	Phthisis pulmonalis							1						1	
	Pleuritis	14	1											14	1
	Pneumonia	29				1				3				33	
	All other diseases	3		2										5	
Diseases of the brain and nervous system.	Cephalalgia	5												5	
	Delirium tremens	6	1			4		1						11	1
	Epilepsia	5				1								6	
	Neuralgia	3		1										4	
	All other diseases	3		2		1								6	
Diseases of the urinary and genital organs.	Gonorrhœa	22		5		2		3		2		6		40	
	Strictura urethræ	1												1	
	Syphilis primitiva	5		1		1		4		2		2		15	
	Syphilis consecutiva	2						1						3	
	All other diseases	2				1		1		2		2		8	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases														
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	17		2				6		7		2		34	
	Fistula	1												1	
Abscesses and ulcers	Phlegmon et abscessus	22		10	1	6		10		13		4		65	1
	Ulcus	25				1		1		2				29	
Wounds and injuries	Ambustio					2								2	
	Amputatio														
	Contusio	13		8		6	1	3		7		5		42	1
	Fractura	2												2	
	Luxatio					1								1	
	Punctio														
	Sub luxatio	10		3		1		4		4		1		23	
	Vulnus incisum	10		2						1				13	
	Vulnus laceratum	1						2		1		1		5	
	Vulnus punctum	2		2		1		3		1				9	
	Vulnus sclopeticum	2												2	
Miscellaneous	Debilitas	6				1								7	
	Ebrietas	19		1		1		2		2				25	
	Hæmorrhois	2						1						3	
	Hernia	5										1		6	
	Morbi cutis	11		1				2		3				17	
	Morbi oculi	11		1		3		1		4		1		21	
	Scorbutus														
	Suicidium							1	1					1	1
	All other diseases	20		10		6		5		2		4		47	
	Total	890	11	178	2	104	1	217	1	202		46		1,637	15

No. 4.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	Years	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	5,525.		1,237.		106.		286.		486.		103.		7,743.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	7
	Febris continua communis	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Febris mitis quotidiana	318	.....	72	.....	1	.....	1	.....	.....	.....	.....	.....	392	.....
	Febris intermittens tertiana	435	.....	105	.....	20	.....	23	.....	11	.....	18	.....	612	.....
	Febris intermittens quartana	6	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	8	.....
	Febris remittens	23	1	1	.....	.....	.....	3	.....	14	.....	.....	.....	51	1
	Febris typhus et typhoides	10	1	.....	.....	.....	.....	4	1	3	1	.....	.....	17	3
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	9	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	10	.....
	Rubeola	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25	.....
	Scarlatina	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Variola	12	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	14	1
	Varicella	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Cholera Asiatica	81	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	81	39
Diseases of the organs connected with the digestive system.	Diarrhœa	451	7	152	.....	17	.....	99	.....	34	.....	4	.....	718	7
	Dysenteria acuta	136	.....	26	.....	.....	.....	2	.....	12	.....	1	.....	177	.....
	Dysenteria chronica	58	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	58	2
	Enteritis	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis acuta	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio	80	.....	125	.....	2	.....	18	.....	20	.....	6	.....	251	.....
	All other diseases	164	2	67	.....	2	.....	16	.....	12	.....	.....	.....	261	2
Diseases of the respiratory system.	Bronchitis acuta et chronica	17	1	24	.....	.....	.....	.....	.....	10	.....	2	.....	53	1
	Catarrhus	690	.....	219	.....	18	.....	16	.....	69	.....	4	.....	1,016	.....
	Phthisis pulmonalis	7	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	5
	Pleuritis	53	4	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	58	4
	Pneumonia	42	8	17	6	.....	.....	2	1	4	.....	1	.....	66	15
	All other diseases	6	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7	1
Diseases of the brain and nervous system.	Cephalalgia	23	.....	.....	.....	.....	.....	.....	.....	1	.....	4	.....	28	.....
	Delirium tremens	29	5	4	1	.....	.....	.....	.....	.....	.....	.....	.....	33	6
	Epilepsia	7	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	8	.....
	Neuralgia	3	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	5	.....
	All other diseases	8	1	2	1	.....	.....	1	1	1	.....	.....	.....	12	3
Diseases of the urinary and genital organs.	Gonorrhœa	58	.....	2	.....	.....	.....	18	.....	1	.....	3	.....	82	.....
	Stricture urethræ	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Syphilis primitiva	43	.....	7	.....	.....	.....	.....	.....	.....	.....	2	.....	52	.....
	Syphilis constitutiva	10	.....	.....	.....	.....	.....	6	.....	1	.....	.....	.....	17	.....
	All other diseases	18	.....	2	.....	1	.....	7	.....	4	.....	1	.....	33	.....
Diseases of the serous and exhalent vessels.	Ascites	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	4	2	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	6	2
Diseases of the fibrous and muscular structures.	Pertussis	9	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	12	.....
	Pedagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	139	.....	35	.....	5	.....	10	.....	12	.....	2	.....	203	.....
Abscesses and ulcers	Fistula	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	103	.....	51	.....	2	.....	1	.....	9	.....	2	.....	168	.....
	Ulcus	60	.....	.....	.....	8	.....	.....	.....	9	.....	.....	.....	77	.....
Wounds and injuries	Ambustio	17	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	22	.....
	Amputatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	207	.....	105	.....	6	.....	20	1	15	.....	5	.....	358	1
	Fractura	9	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
	Luxatio	7	.....	1	.....	1	.....	2	.....	.....	.....	4	.....	15	.....
	Punctio	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	Sub luxatio	21	.....	8	.....	2	.....	1	.....	4	.....	.....	.....	46	.....
	Vulnus morsum	48	.....	20	.....	2	.....	1	.....	.....	.....	.....	.....	71	.....
	Vulnus laceratum	10	.....	1	.....	2	.....	.....	.....	4	.....	4	.....	21	.....
	Vulnus punctum	3	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	4	.....
	Vulnus sclopeticum	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
Miscellaneous	Debilitas	45	.....	50	.....	.....	.....	2	.....	4	.....	4	.....	103	.....
	Ebrietas	48	1	2	.....	1	.....	3	.....	.....	.....	3	.....	57	1
	Hæmorrhoides	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	.....
	Hernia	9	.....	3	.....	1	.....	.....	.....	.....	.....	.....	.....	13	.....
	Mala cuta	16	.....	3	.....	.....	.....	3	.....	.....	.....	.....	.....	22	.....
	Morbi cuti	58	.....	10	.....	1	.....	2	.....	4	.....	2	.....	77	.....
	Scrofulæ	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	All other diseases	192	2	21	.....	1	.....	24	.....	15	.....	.....	.....	253	2
	Total	3,908	90	1,165	9	98	.....	217	4	275	1	74	.....	5,737	104

AMONG THE TROOPS AT JEFFERSON BARRACKS AND ST. LOUIS ARSENAL.

SECOND QUARTER.

CLASSES OF DISEASES.	Years	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	4,232.		566.		95.		105.		652.		49.		5,699.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	1	1											1	1
	Febris continua communis	7												7	
	Febris inter. quotidiana	527		25		6		4		10		7		579	
	Febris intermittens tertiana	423	2	59		17		4		40		2		545	2
	Febris intermittens quartana	9								9				18	
	Febris remittens	39	2			3		1		11				54	2
	Febris typhus et typhoides	13	1					1	1	5				19	2
	Febris typhus heterodes	3												3	
Eruptive fevers	Erysipelas	5						1		5				11	
	Rubeola	22												22	
	Scarlatina				1										1
	Variola	2	2	2										4	2
	Variolodes	2												2	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	80	49	191	19									271	68
	Diarrhœa	999	7	192	1	15		6		39				1,251	8
	Dysenteria acuta	241	2	96						12				349	2
	Dysenteria chronica	89	1											89	1
	Enteritis														
	Hepatitis acuta	4												4	
	Hepatitis chronica	2												2	
	Obstipatio	164		36		4		1		26		2		233	
	All other diseases	111	1	31		8				20				170	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	11	2	11	1					13				35	3
	Catarrhus	410		71		8		6		47				542	
	Phthisis pulmonalis	4	2		1									4	3
	Pleuritis	41	3	2										43	3
	Pneumonia	17	7	16	7					3				36	14
	All other diseases	5		1						2				8	
Diseases of the brain and nervous system.	Cephalalgia	41										1		42	
	Delirium tremens	23	5	2	3					1	1			26	9
	Epilepsia	3				2								5	
	Neuralgia	6								2				8	
	All other diseases	9	4											9	4
Diseases of the urinary and genital organs.	Gonorrhœa	56		5		6		5		24				96	
	Strictura urethræ	4				1								5	
	Syphilis primitiva	32		10		1		2		8				53	
	Syphilis consecutiva	2												2	
	All other diseases	14								5				19	
Diseases of the serous and exhalent vessels.	Ascites	4	1											4	1
	All other diseases	1												1	
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	158		25		4		3		13		1		204	
Abscesses and ulcers	Fistula														
	Phlegmon et abscessus	87		24		2		1		22				136	
	Ulcus	67						2		20				89	
Wounds and injuries	Ambustio	7				1								8	
	Amputatio														
	Contusio	192		70		16		5		22				305	
	Fractura	6	1	1		1								8	1
	Luxatio	4												4	
	Punctio														
	Sub-luxatio	42								6		1		49	
	Vulnus incisum	57		4						4				65	
	Vulnus laceratum	7		1		2				4				14	
	Vulnus punctum	5		1		1				1				8	
	Vulnus sclopeticum	8		1										9	
Miscellaneous	Debilitas	140		80		2				3				225	
	Ebrietas	70	1			4		1		15				90	1
	Hæmorrhois	33		1						1				35	
	Hernia	7				1								8	
	Morbi cutis	15		2						3				20	
	Morbi oculi	81		10		2		2		8				103	
	Scorbutus	1		5										6	
	All other diseases	132		11		4		9		26				182	
	Total	4,545	94	986	33	111		54	1	430	1	14		6,140	129

No. 4.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.												TOTAL.	
	YEARS	1849-1854		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	6,245.		726.		54.		36.		52.		42.		7,055.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	6
	Febris continua communis	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	.....
	Febris inter quotidiana	662	2	80	.....	30	.....	.....	.....	19	.....	11	.....	777	2
	Febris intermittens tertiana	810	.....	153	.....	7	.....	1	.....	4	.....	8	.....	1,006	.....
	Febris intermittens quartana	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Febris remittens	174	10	1	.....	5	.....	1	.....	3	.....	.....	.....	184	10
	Febris typhus et typhoides	13	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	14	4
	Febris typhus icterodes	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Eruptive fevers	Erysipelas	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Rubeola	13	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	5
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicella	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the organs connected with the digestive system	Cholera Asiatica	196	34	85	16	.....	.....	.....	.....	.....	.....	.....	.....	281	50
	Diarrhœa	1,262	37	453	1	33	.....	4	.....	4	.....	3	.....	1,759	38
	Dysentery acuta	384	9	189	.....	.....	.....	.....	.....	2	.....	.....	.....	575	9
	Dysenteria chronica	32	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	32	2
	Enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis acuta	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Hepatitis chronica	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Obstipatio	196	.....	73	.....	13	.....	2	.....	1	.....	.....	.....	285	.....
	All other diseases	158	.....	46	.....	4	1	2	.....	1	.....	.....	.....	201	1
Diseases of the respiratory system	Bronchitis, acuta et chronica	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Catarrhus	489	1	26	2	3	.....	2	.....	.....	.....	.....	.....	516	3
	Phthisis pulmonalis	9	10	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	10	10
	Pleuritis	17	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17	1
	Pneumonia	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	All other diseases	6	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	8	.....
Diseases of the brain and nervous system	Cephalalgia	71	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	72	.....
	Delirium tremens	15	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	16	1
	Epilepsia	5	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Neuralgia	3	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	4	.....
	All other diseases	8	4	.....	.....	2	.....	.....	.....	.....	.....	1	.....	11	4
Diseases of the urinary and genital organs	Gonorrhœa	49	.....	15	.....	7	.....	2	.....	.....	.....	.....	.....	73	.....
	Stricture urethræ	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis primitiva	29	.....	2	.....	.....	.....	2	.....	3	.....	.....	.....	36	.....
	Syphilis consecutiva	6	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	.....
	All other diseases	14	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	.....
Diseases of the serous and exhalent vessels	Ascites	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1
	All other diseases	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
Diseases of the fibrous and muscular structures	Pemphigus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	104	.....	8	.....	2	.....	2	.....	1	.....	1	.....	123	.....
	Scrofula	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
Abscesses and ulcers	Phlegmona et abscessus	196	.....	39	.....	1	.....	.....	.....	.....	.....	1	.....	198	.....
	Ulcus	44	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	45	.....
	Ambustio	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	.....
Wounds and injuries	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	183	.....	92	.....	8	.....	1	.....	5	.....	1	.....	296	.....
	Fractura	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	8	1
	Luxatio	6	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	7	1
	Punctio	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
	Sub luxatio	53	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	60	.....
	Vulnus incisum	49	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	51	.....
	Vulnus laceratum	16	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	17	.....
	Vulnus punctum	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....
	Vulnus sclopeticum	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
Miscellaneous	Debilitas	75	.....	160	.....	.....	.....	.....	.....	.....	.....	.....	.....	235	.....
	Ebrietas	92	1	2	.....	7	.....	.....	.....	.....	.....	.....	.....	101	1
	Hæmorrhois	23	.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	30	.....
	Hernia	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	.....
	Morbi cutis	9	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....
	Morbi oculi	96	.....	5	.....	2	.....	.....	.....	.....	.....	1	.....	104	.....
	Scabies	3	1	5	.....	1	.....	.....	.....	.....	.....	.....	.....	9	1
	All other diseases	136	1	12	.....	3	.....	.....	.....	.....	.....	2	.....	153	1
	Total	5,761	129	1,476	21	139	1	22	.....	45	.....	30	1	7,473	152

AMONG THE TROOPS AT JEFFERSON BARRACKS AND ST. LOUIS ARSENAL.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,320.		575.		89.		46.		66.		82.		7,188.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	8	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	6
	Febris continua communis	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Febris inter. quotidiana	625	.....	20	.....	1	.....	9	.....	6	.....	.....	.....	661	.....
	Febris intermittens tertiana	868	.....	87	.....	15	.....	.....	.....	9	.....	14	.....	993	.....
	Febris intermittens quartana	1	.....	.....	.....	.....	.....	.....	.....	1	.....	6	.....	8	.....
	Febris remittens	96	7	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	109	7
	Febris typhus et typhoides	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	.....
	Febris typhus icterodes	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1
Eruptive fevers	Erysipelas	5	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	.....
	Rubeola	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Scarlatina	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	11	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	8
	Diarrhœa	1,042	11	75	.....	10	.....	.....	.....	11	.....	3	.....	1,141	11
	Dysenteria acuta	182	8	83	.....	1	.....	.....	.....	1	.....	.....	.....	267	8
	Dysenteria chronica	15	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	16	2
	Enteritis	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	2
	Obstipatio	178	.....	27	.....	5	.....	.....	.....	1	.....	.....	.....	211	.....
	All other diseases	182	2	3	.....	1	.....	1	.....	.....	.....	.....	.....	187	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	35	1	.....	.....	.....	.....	.....	.....	.....	.....	6	.....	41	1
	Catarrhus	765	.....	11	.....	5	.....	.....	.....	8	.....	4	.....	793	.....
	Phthisis pulmonalis	3	4	.....	.....	.....	.....	.....	.....	2	2	.....	.....	5	6
	Pleuritis	51	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	51	3
	Pneumonia	57	11	.....	.....	1	.....	.....	.....	.....	.....	1	.....	59	11
	All other diseases	6	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	7	1
Diseases of the brain and nervous system.	Cephalalgia	45	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	46	.....
	Delirium tremens	23	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23	6
	Epilepsia	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Neuralgia	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	All other diseases	14	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	16	2
Diseases of the urinary and genital organs.	Gonorrhœa	82	.....	4	.....	4	.....	1	.....	.....	.....	1	.....	92	.....
	Stricture urethræ	5	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	7	.....
	Syphilis primitiva	28	.....	3	.....	1	.....	1	.....	2	.....	.....	.....	35	.....
	Syphilis consecutiva	7	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	9	.....
	All other diseases	12	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	1
Diseases of the serous and exhalent vessels.	Ascites	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	All other diseases	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
Diseases of the fibrous and muscular structures.	Pernio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	132	.....	3	.....	3	.....	1	.....	1	.....	1	.....	141	.....
Abscesses and ulcers	Fistula	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	180	.....	11	.....	3	.....	.....	.....	1	.....	1	.....	196	.....
	Ulcus	83	.....	1	.....	.....	.....	.....	.....	2	.....	.....	.....	86	.....
Wounds and injuries	Ambustio	24	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	26	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	279	.....	26	.....	17	.....	.....	.....	3	.....	2	.....	327	.....
	Fractura	9	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	1
	Luxatio	7	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	10	.....
	Punctio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Sub luxatio	60	.....	6	.....	1	.....	.....	.....	3	.....	2	.....	72	.....
	Vulnus incisum	80	.....	4	.....	.....	.....	.....	.....	.....	.....	1	.....	85	.....
	Vulnus laceratum	16	.....	1	.....	1	.....	.....	.....	.....	.....	1	.....	19	.....
	Vulnus punctum	7	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	9	.....
	Vulnus sclopeticum	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
Miscellaneous	Debilitas	128	.....	27	.....	1	.....	.....	.....	.....	.....	.....	.....	156	.....
	Ebrietas	44	.....	3	.....	2	.....	.....	.....	.....	.....	.....	.....	49	.....
	Hæmorrhois	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	.....
	Hernia	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19	.....
	Morbi cutis	10	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	11	.....
	Morbi oculi	69	.....	3	.....	.....	.....	.....	.....	1	.....	.....	.....	73	.....
	Scorbutus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	148	3	3	.....	5	1	.....	.....	.....	.....	4	.....	160	4
	Total	5,741	89	407	1	90	1	13	.....	54	2	51	.....	6,356	84

No. 5.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEARS	1853 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	5,647.		353.		1,056.		1,195.		1,965.		694.		10,910.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua simplex	1												1	
	Febris continua communis	4				4		2		1		1		12	
	Febris intermittens quotidiana	241		7		13		41		39		38		379	
	Febris intermittens tertiana	401		37		19		25		129		39		651	
	Febris intermittens quartana	4												4	
	Febris remittens	23								5				28	
	Febris typhus et typhoides	2				9	1			2	1			13	2
Eruptive fevers	Erysipelas	8				2				5		1		16	
	Rubeola	2												2	
	Scarlatina	1												1	
	Varicella														
	Variolodes	2												2	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	6	2											6	2
	Diarrhœa	396	1	54		63	3	79		70	2	15		567	6
	Dysentery acuta	87	2	1		9		1		6		1		105	2
	Dysentery chronica	5		2		1		1						9	
	Enteritis	4	2											4	2
	Hepatitis acuta	8												8	
	Hepatitis chronica	3												3	
	Obstipatio	116		16		54		25		43		15		269	
	All other diseases	154	1	3		64		24	1	44		7		317	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	86	1	58		6		15	1	2		8		175	2
	Catarrhus	656		28		201		168		124		30		1,207	
	Phthisis pulmonalis	5	10			1	1				2			6	13
	Pleuritis	63		1		6	1	3		2	1			75	2
	Pneumonia	29	3			10	1	12	2	7	1			58	7
	All other diseases	11						30		2				43	
Diseases of the brain and nervous system.	Cephalalgia	80	1							3		2		85	1
	Delirium tremens	37	2	1		5		8	3	9	1	3		63	6
	Epilepsia	5		1		1				1			1	8	1
	Neuralgia	15				12		6		3		6		42	
	All other diseases	14	1				1	2	1	1				17	3
Diseases of the urinary and genital organs.	Gonorrhœa	51		1		9		9		19		2		91	
	Stricture urethræ	5						1						6	
	Syphilis primitiva	6						2				1		9	
	Syphilis consecutiva	6		8		2		2				3		21	
	All other diseases	46		1		11		2		1		2		63	
Diseases of the serous and exhalant vessels	Ascites	2									1			3	1
	All other diseases	7				2								9	
Diseases of the fibrous and muscular structures.	Pertussis	54		2				8		4				68	
	Podagra	2												2	
	Rheumatismus	272		9		24		25		45		17		393	
Abscesses and ulcers	Fistula	2												2	
	Phlegmon et abscessus	250		21		54		33		76		24		458	
	Ulcus	87		6		20		45				11		169	
Wounds and injuries	Ambustio	18				1		3		11		2		35	
	Amputatio					3				1				4	
	Contusio	418		40		65		91		97		43		754	
	Fractura	11				5		3		4		1		27	
	Luxatio	17				2		6	1					25	1
	Punctio											3		3	
	Sub Luxatio	128		27		15		27		15		8		220	
	Vulnus morsum	105		8		8		7		12		11		151	
	Vulnus laceratum	31		5		6		27		23		6		98	
	Vulnus punctum	22	1			4		10		3		1		40	1
	Vulnus sclopeticum	15	7			1		2		1				19	7
Miscellaneous	Debilitas	11						1		8				26	
	Ebrietas	114				9		88		42		13		266	
	Hæmorrhois	23		2		13		6		6		1		51	
	Hernia	8				2		1		1				12	
	Morbi cutis	27						7		16		2		52	
	Morbi oculi	59		12		23		12		16		8		130	
	Scorbutus	14	1	1		26		6		2				49	1
	Suicidium					1	1							1	1
	All other diseases	325	4	11		46	2	39		20	1	16		469	7
	Total	4,573	39	343		834	11	909	9	922	10	341	1	7,922	70

AMONG THE TROOPS AT POSTS IN THE MIDDLE INTERIOR REGION—WEST.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1839 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	5,690.		642.		965.		1,175.		899.		695.		10,005.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	1												1	
	Febris continua communis	12	1			6				4		3		25	1
	Febris inter. quotidiana	481		47		22		34		19		39		642	
	Febris intermittens tertiana	817		50		44		50		134		65		1,160	
	Febris intermittens quartana	8						2						10	
	Febris remittens	42	1	9		4		27		6				88	1
	Febris typhus et typhoides	2	1			3	1	2	1	1	1			9	4
Eruptive fevers	Erysipelas	15				1		3				1		20	
	Rubeola	66	3			31		11		5				113	3
	Scarlatina							2	1	4				6	1
	Variola	7								3				10	
	Varioloides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica	88	44	68	25									156	69
	Diarrhœa	619	1	201		70	1	99		77	2	21		1,087	4
	Dysenteria acuta	134	3	18		2		2		8		3		167	3
	Dysenteria chronica	2										1		3	
	Enteritis	6	2											6	2
	Hepatitis acuta	14												14	
	Hepatitis chronica	2												2	
	Obstipatio	164		52		45		70		40		22		393	
	All other diseases	226		13		25		12		30		9		345	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	70	1	49		2		9	1	2		7		139	2
	Catarrhus	298	1	17		99		154		75		10		563	1
	Phthisis pulmonalis	9	1					1	1					10	2
	Pleuritis	76	1	1				2		1	1	3		83	2
	Pneumonia	27	2	1	1	4	1	7	3	8	1	7		54	8
	All other diseases	19		1						2				22	
Diseases of the brain and nervous system.	Cephalalgia	112								4				116	
	Delirium tremens	41	7	4		4		3		10	2	3		65	9
	Epilepsia	15				1		1						17	
	Neuralgia	11				7		1		2		1		22	
	All other diseases	8		1		1				2	1			12	1
Diseases of the urinary and genital organs.	Gonorrhœa	72		3		8		9		7		6		105	
	Strictura urethræ									1				1	
	Syphilis primitiva	13		5				2				1		21	
	Syphilis consecutiva	12	1	2				3		7		2		26	1
	All other diseases	49	1	5		2		3		2				61	1
Diseases of the serous and exhalent vessels.	Ascites	2	2			1								3	2
	All other diseases									1				1	
Diseases of the fibrous and muscular structures.	Pernio	3				1								4	
	Podagra	2												2	
	Rheumatismus	209		18		22		38		48		11		346	
Abscesses and ulcers	Fistula	1		1				1						3	
	Phlegmon et abscessus	230	1	26		28		19		36		23		362	1
	Ulcus	98		16		23		47		20		4		208	
Wounds and injuries	Ambustio	14				2		2						18	
	Amputatio			1		1								2	
	Contusio	493		75		58		152		89		50		827	
	Fractura	20		1		2		2				2		27	
	Luxatio	12		1		1		4		3		1		22	
	Punctio	3										1		4	
	Sub luxatio	103		15		38		19		16		6		197	
	Vulnus morsum	74		17		7		3		6	1	4		111	1
	Vulnus laceratum	60		4		8		14		11		8		105	
	Vulnus punctum	19		8		13		2		6				48	
	Vulnus sclopeticum	9				2	1	1						12	1
Miscellaneous	Debilitas	33		8		2				1				44	
	Ebrietas	81		2		21		67		29		9		212	
	Hæmorrhois	19		6		8				2		2		37	
	Hernia	4				3				2		1		10	
	Morbi cutis	16		1		1		12		10		4		44	
	Morbi oculi	112		3		24		23		14		5		184	
	Scorbutus	27		30		8		6						71	
	Suicidium							1	1					1	1
	All other diseases	253	1	33		12		12		33	2	14		357	3
	Total	5,255	75	813	26	670	4	967	8	781	11	389		8,875	124

No. 5.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER													
	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	4,572.		460.		433.		672.		625.		463.		7,225.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	7	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	3
	Febris continua communis	7	.....	41	.....	.....	.....	.....	.....	11	.....	2	.....	61	.....
	Febris inter. quotidiana	1,123	.....	78	.....	30	.....	7	.....	137	.....	226	.....	1,601	.....
	Febris intermittens tertiana	666	1	.....	.....	20	.....	67	.....	82	.....	109	.....	960	1
	Febris intermittens quartana	18	.....	.....	.....	.....	.....	9	.....	.....	.....	4	.....	31	.....
	Febris remittens	152	3	33	.....	6	.....	10	.....	8	.....	.....	.....	209	3
	Febris typhus et typhoides	.....	.....	10	2	2	1	1	1	1	.....	.....	.....	14	4
Eruptive fevers	Erysipelas	8	.....	.....	.....	.....	.....	1	.....	2	.....	.....	.....	11	.....
	Rubeola	46	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	47	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	31	14	60	29	.....	.....	.....	.....	.....	.....	.....	.....	91	43
	Diarrhœa	676	.....	337	.....	106	.....	188	.....	76	.....	35	.....	1,418	.....
	Dysenteria acuta	272	4	17	.....	3	.....	1	.....	11	.....	29	.....	333	1
	Dysenteria chronica	6	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....	10	.....
	Enteritis	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis acuta	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
	Hepatitis chronica	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Obstipatio	179	.....	32	.....	36	.....	28	.....	2	.....	20	.....	317	.....
	All other diseases	261	.....	69	2	13	.....	23	1	10	.....	12	.....	388	3
Diseases of the respiratory system.	Bronchitis acuta et chronica	14	.....	1	.....	1	.....	2	.....	.....	.....	1	.....	19	.....
	Catarrhus	268	.....	75	.....	14	.....	55	.....	13	.....	5	1	431	1
	Phthisis Pulmonalis	8	2	.....	.....	.....	.....	1	.....	3	2	1	.....	13	4
	Pleuritis	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	36	.....
	Pneumonia	22	.....	.....	.....	1	.....	5	2	.....	.....	2	.....	30	2
	All other diseases	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
Diseases of the brain and nervous system.	Cephalalgia	109	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	110	.....
	Delirium tremens	31	1	6	.....	2	1	.....	.....	.....	.....	1	1	40	3
	Epilepsia	8	.....	1	.....	1	.....	1	.....	1	.....	.....	.....	12	.....
	Neuralgia	6	.....	.....	.....	2	.....	1	.....	1	.....	.....	.....	10	.....
	All other diseases	19	3	1	1	.....	1	1	.....	1	.....	.....	.....	22	5
Diseases of the urinary and genital organs.	Gonorrhœa	42	.....	18	.....	9	.....	10	.....	2	.....	1	.....	82	.....
	Stricture urethræ	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis primitiva	14	.....	5	.....	2	.....	2	.....	1	.....	1	.....	25	.....
	Syphilis consecutiva	5	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	8	.....
	All other diseases	30	.....	8	.....	2	.....	4	.....	2	.....	.....	.....	46	.....
Diseases of the serous and exhalent vessels.	Ascites	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	All other diseases	7	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
Diseases of the fibrous and muscular structures.	Pemio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	148	.....	8	.....	18	.....	24	.....	3	.....	3	.....	204	.....
Abscesses and ulcers	Fistula	3	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	6	.....
	Phlegmone et abscessus	296	.....	12	.....	28	.....	11	.....	6	.....	24	.....	377	.....
	Ulcus	90	.....	24	.....	5	.....	11	.....	17	.....	3	.....	150	.....
Wounds and injuries	Ambustio	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	.....
	Amputatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	267	.....	38	.....	43	.....	52	.....	36	.....	16	.....	452	.....
	Fractura	12	.....	3	.....	2	.....	4	.....	1	.....	1	.....	23	.....
	Luxatio	3	.....	4	.....	3	2	2	.....	1	.....	.....	.....	13	2
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	78	.....	13	.....	18	.....	1	.....	4	.....	.....	.....	114	.....
	Vulnus incisum	78	.....	5	.....	4	.....	7	.....	.....	.....	4	.....	98	.....
	Vulnus laceratum	60	.....	4	.....	9	.....	2	.....	1	.....	1	.....	77	.....
	Vulnus punctum	18	1	3	.....	.....	.....	.....	.....	1	.....	.....	.....	22	1
	Vulnus sclopetorum	7	.....	.....	.....	5	.....	4	.....	2	.....	.....	.....	18	.....
Miscellaneous	Debilitas	28	.....	.....	.....	2	.....	2	.....	5	.....	2	.....	39	.....
	Ebrietas	97	1	16	.....	20	.....	47	.....	37	.....	13	.....	230	1
	Hæmorrhois	34	.....	9	.....	6	.....	7	.....	2	.....	2	.....	60	.....
	Hernia	7	.....	.....	.....	2	.....	1	.....	1	.....	.....	.....	11	.....
	Morbi cutis	38	.....	1	.....	1	.....	2	.....	1	.....	4	.....	47	.....
	Morbi oculi	97	.....	9	.....	7	.....	5	.....	6	.....	1	.....	128	.....
	Scorbutus	2	.....	1	.....	3	.....	5	.....	2	.....	.....	.....	13	.....
	Suicidium	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	205	3	80	1	15	.....	12	.....	7	.....	17	.....	336	4
	Total	5,676	37	1,027	35	490	5	621	4	448	2	597	2	8,859	85

AMONG THE TROOPS AT POSTS IN THE MIDDLE INTERIOR REGION—WEST.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	5,367.		911.		859.		2,067.		705.		673.		10,582.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases	Died.
Fevers	Febris continua communis..	13	1	22	.....	.....	.....	2	1	11	.....	.....	.....	48	2
	Febris inter. quotidiana	1,001	.....	17	.....	42	.....	15	.....	151	.....	158	.....	1,414	.....
	Febris intermittens tertiana.	675	.....	36	.....	31	.....	233	.....	119	.....	23	.....	1,117	.....
	Febris intermittens quartana	10	.....	1	.....	.....	.....	.....	.....	3	.....	.....	.....	14	.....
	Febris remittens	67	1	.....	.....	1	.....	9	.....	2	.....	.....	.....	79	1
	Febris typhus et typhoides..	5	.....	21	2	2	.....	3	2	.....	1	.....	.....	31	5
	Febris typhus ieterodes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas.....	8	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	10	1
	Rubeola.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Varioloides.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica.....	.....	.....	8	2	.....	.....	1	.....	.....	.....	.....	.....	9	2
	Diarrhœa.....	559	1	251	2	42	2	360	2	32	1	35	.....	1,279	8
	Dysenteria acuta.....	130	1	29	.....	1	.....	29	.....	1	.....	14	.....	204	1
	Dysenteria chronica.....	8	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	10	1
	Enteritis.....	3	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	4	1
	Hepatitis acuta.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7	.....
	Hepatitis chronica	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Obstipatio.....	114	.....	31	.....	21	.....	53	.....	9	.....	16	.....	247	.....
	All other diseases.....	152	.....	54	1	19	.....	49	1	11	.....	19	.....	304	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	98	.....	8	.....	2	.....	14	.....	7	.....	1	.....	130	.....
	Catarrhus.....	451	.....	221	.....	83	.....	316	.....	106	.....	60	.....	1,237	.....
	Phthisis pulmonalis.....	6	.....	.....	.....	.....	1	1	1	.....	.....	.....	.....	7	2
	Pleuritis.....	59	.....	1	.....	.....	.....	3	.....	1	.....	3	1	67	1
	Pneumonia.....	25	2	9	1	3	.....	12	4	1	.....	17	.....	67	7
	All other diseases	4	.....	1	.....	1	.....	4	.....	1	.....	.....	.....	11	.....
Diseases of the brain and nervous system.	Cephalalgia.....	57	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	62	.....
	Delirium tremens.....	18	2	3	.....	8	.....	14	1	2	1	2	1	47	5
	Epilepsia	8	.....	1	.....	.....	.....	3	.....	1	.....	.....	.....	13	.....
	Neuralgia.....	9	.....	10	.....	2	.....	1	.....	3	.....	12	.....	37	.....
	All other diseases.....	16	3	.....	.....	.....	.....	3	.....	1	1	1	.....	21	4
Diseases of the urinary and genital organs.	Gonorrhœa	45	.....	9	.....	2	.....	16	.....	20	.....	4	.....	96	.....
	Structura urethræ	4	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	6	.....
	Syphilis primitiva.....	5	.....	1	.....	.....	.....	2	.....	4	.....	.....	.....	12	.....
	Syphilis consecutiva.....	9	.....	2	.....	.....	.....	3	.....	3	.....	.....	.....	17	.....
	All other diseases.....	33	.....	2	.....	2	.....	9	.....	5	.....	1	.....	52	.....
Diseases of the serous and exhalent vessels.	Ascites.....	4	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	7	1
	All other diseases.....	4	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	5	1
Diseases of the fibrous and muscular structures.	Pernio.....	35	.....	.....	.....	7	.....	1	1	.....	.....	20	.....	63	1
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus.....	213	.....	27	.....	18	.....	70	.....	17	.....	18	.....	363	.....
Abscesses and ulcers....	Fistula.....	.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	5	.....
	Phlegmon et abscessus.....	255	.....	37	.....	7	.....	32	.....	20	.....	44	.....	395	.....
	Ulcus	133	.....	13	.....	31	.....	65	.....	12	.....	15	.....	269	.....
Wounds and injuries....	Ambustio	18	.....	2	.....	4	.....	6	.....	1	.....	2	.....	33	.....
	Amputatio	.....	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....
	Contusio	348	.....	96	.....	49	.....	111	.....	50	.....	95	1	679	1
	Fractura.....	9	.....	2	.....	2	.....	10	.....	1	.....	6	.....	30	.....
	Luxatio	6	.....	1	.....	8	.....	4	.....	1	.....	2	.....	22	.....
	Punctio.....	5	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	9	.....
	Sub luxatio.....	137	.....	17	.....	16	.....	18	.....	7	.....	11	.....	206	.....
	Vulnus incisum.....	92	.....	3	.....	8	.....	21	.....	8	.....	16	.....	148	.....
	Vulnus laceratum	82	.....	20	.....	21	.....	14	.....	10	.....	.....	.....	147	.....
	Vulnus punctum.....	16	1	2	1	13	.....	5	.....	6	.....	1	.....	43	2
	Vulnus sclopeticum	10	1	.....	.....	3	.....	6	.....	3	1	.....	.....	22	2
Miscellaneous	Debilitas.....	20	.....	14	.....	.....	.....	13	.....	6	.....	2	.....	55	.....
	Ebrietas.....	71	.....	7	.....	38	.....	46	.....	59	.....	12	.....	233	.....
	Hæmorrhois	27	.....	10	.....	3	.....	8	.....	5	.....	3	.....	56	.....
	Hernia	9	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	12	.....
	Morbi cutis.....	92	.....	.....	.....	1	.....	6	.....	2	.....	3	.....	24	.....
	Morbi oculi	81	.....	12	.....	9	.....	20	.....	9	.....	6	.....	137	.....
	Scorbutus	2	.....	.....	.....	1	.....	16	.....	.....	.....	3	.....	22	.....
	Suicidium.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1
	All other diseases.....	224	2	33	.....	18	.....	44	.....	13	.....	14	.....	346	2
	Total	5,427	16	975	12	521	3	1,721	14	726	6	640	3	10010	54

SOUTHERN DIVISION.

SOUTH ATLANTIC REGION.

THIS region represents that portion of the Atlantic coast lying between the thirtieth and thirty-fifth degrees of latitude. It includes Forts Macon, Johnston, and Moultrie, and Oglethorpe Barracks.

For the medical topography of these posts the reader is referred to the report of 1856.

DISEASES.

In examining the following statistical tables that have been compiled from Abstract No. 1 for this division, being that for the South Atlantic Region, the fact that during the whole period covered by these statistics, that is, from 1839 to 1860, the troops stationed in Charleston harbor constituted the greater portion serving in that region, and that therefore the results are mainly applicable to that locality, should be remembered.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	3,390	1,655	8	488	2.3
Second quarter	3,465	2,091	16	603	4.6
Third quarter	3,337	3,027	33	907	9.8
Fourth quarter	3,411	2,267	36	664	10.5
Annual ratio	3,401	9,040	93	2,658	27.3

It appears from this table that the annual ratio of cases treated to the number of men is 2.65 to 1, and that the corresponding proportion of deaths is 1 to 36.6, or 2.7 per cent. The proportion of deaths to cases treated is 1 in 97, or 1.03 per cent. Exclusive of yellow fever, the annual ratio of deaths to the mean strength of the forces is 1 in 57.6, or 1.73 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	3,390		3,465		3,337		3,411		3,401			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	9	0	46	0	17	1	17	0	89	1	1 in 89	26
Febris intermittens quotidiana	20	0	56	0	81	1	35	0	192	1	1 in 192	56.7
Febris intermittens tertiana	67	0	65	0	107	0	112	0	351	0	0 in 351	103
Febris intermittens quartana	16	0	10	0	10	0	18	0	54	0	0 in 54	15.8
Febris remittens	11	0	35	0	172	3	65	2	283	5	1 in 56	83
Febris typhus et typhoides	1	0	2	1	14	2	4	0	21	3	1 in 7	6
Febris typhus icterodes	0	0	3	1	37	15	50	18	90	34	1 in 2.6	26
Total	124	0	217	2	438	22	301	20	1,080	44	1 in 25	317

In the report of 1856 will be found an elaborate account of the medical topography and diseases of Fort Moultrie, Charleston harbor, particularly in relation to the various epidemics of yellow fever that have prevailed at that post. That report, written by Surgeon J. B. Porter, tends to prove the domestic or local origin of yellow fever at Fort Moultrie, as opposed to its importation and contagion.

In the summer of 1858, yellow fever in an epidemic form again appeared at Fort Moultrie. Its origin and progress are described by Surgeon B. M. Byrne in the following communication to the Surgeon General:

FORT MOULTRIE, S. C.,
November 19, 1858.

GENERAL: I have the honor to submit the following report relating to the introduction and prevalence of yellow fever among the troops at Fort Moultrie.

The first case of this disease which occurred among the troops was in the person of Private Jones, of company E, First Artillery, who at the time he was taken ill was serving as orderly to the commanding officer. He was attacked on the 12th and died on the 16th of August, 1858, of a malignant type of yellow fever. On the fifth day of his illness his brain became affected, he threw up black vomit, and died shortly afterwards, in convulsions.

I found it impossible to ascertain how Jones contracted the disease; but the presumption is that, as he slept out of garrison, and had full liberty every night to visit the numerous drinking-shops on the island, which were crowded with persons daily arriving from the infected city of Charleston, it was from this source he imbibed the poison.

The second case was that of Sergeant McMahon, of company H, First Artillery. He was attacked on the 20th of August, and although the disease was well-marked, it was of a mild type, and he was reported for duty on the 31st of the same month.

The third case was that of Sergeant Reinhan, of company H, First Artillery, who was attacked on the 26th of August. The disease in this case made its incursion with very violent symptoms, but soon yielded to treatment, and he was reported for duty on the 4th of September.

The fourth case was that of Private Holden, who was attacked on the 1st of September, and died on the fourth day, of a very malignant form of the disease. This man had arrived at this post from Key West only a few days before his attack, and came passenger in the steamer Catawba, which was regarded in Charleston as an infected vessel.

The fifth case was that of Private Zimmerman, of company E, First Artillery, who had taken

the place of Jones, as orderly to the commanding officer. He was taken ill on the 2d and died on the 5th of September.

The sixth case was that of Private Chester, of company E, who was taken ill on the 2d and reported for duty on the 5th of September.

These six were the only cases that appeared among the troops before I was taken sick, which occurred on the night of the 8th of September. During my illness, which continued till the 11th of October, the troops were attended by Dr. Ravenel, (a citizen physician,) from the 9th to the 17th of September, and by Assistant Surgeon L'Engle from the 17th of September to the 11th of October. The whole number of cases attended by Dr. Ravenel was eighteen, of whom ten died and eight recovered. The total number of cases attended by Assistant Surgeon L'Engle was fourteen, of whom nine died and five recovered.

After my return to duty, on the 11th of October, fourteen cases came under my care, of which seven died and seven recovered.*

These, together with the six cases first reported, make the total number attended by me twenty, of whom ten died and ten recovered.

The number of troops in garrison on the 1st of August, 1858, was 148, and the total number of cases of yellow fever which occurred among them from the first manifestation of the pestilence on the 12th of August, till its entire disappearance on the 31st of October, was fifty-two; of whom twenty-nine died, and twenty-three recovered.

The type of this disease was generally of a very malignant character. In most of the cases it rushed on to its fatal termination, scarcely, if at all, checked in its course by any of the various methods of treatment employed to control it.

The diagnostic symptoms differed in no respect from those which have everywhere marked the individuality of this disease.

The course of treatment generally pursued in the cases which I attended was as follows: In the first stage, hot mustard baths were uniformly employed, and were almost always followed by an alleviation of the severe pains in the head, back, and limbs. After the exhibition of a dose of ten grains of calomel, combined with ten grains of quinine, and the employment of the baths, diaphoretics were administered, dry heat applied, and perspiration sedulously promoted till the fever subsided. In some cases the calomel was repeated in small doses, with the view to produce a mercurial impression on the system; but very generally fatal symptoms presented themselves before this object was attained.

In the second stage, brandy, beef-tea, blisters over the stomach, sinapisms to different parts of body, and all the usual means of stimulation and support were resorted to, to meet emergencies as they arose.

This was the general treatment adopted, but other methods were employed without any better success. Indeed, my experience in this epidemic does not authorize a preference for any one method of treatment over another; as all means seemed equally futile in cases of a very malignant form; while any simple method of judicious treatment proved successful in the milder types of the disease. A mortality of twenty-nine out of fifty-two cases of the disease presents a sad and discouraging record; and from all I can learn, the proportion of fatal cases among the troops was exceeded by that among the citizens on this island. It seems to me that yellow fever must still be regarded as an incurable disease, and that they who *recover* from it do so because the dose of the poison which they have imbibed, and their susceptibility to its effects, have not been strong enough to kill them. Before this pestilence can be said to be curable, an *antidote* must be discovered to its poison.

How this disease was introduced among the troops at this post is a question that can be satisfactorily answered if we admit its contagiousness; but on any other hypothesis its intro-

*The names of the persons treated by the three attending physicians are given in the original report.

duction would be entirely inexplicable. This island has always sustained a high reputation for salubrity, and never was its sanitary condition better than during the past summer. No probable local cause of disease could be discovered, even by those whose preconceived opinions lead them to search industriously for such cause. If, therefore, the disease *originated* any where on this island, the cause of its origin is totally inexplicable. If, on the other hand, we take the view that yellow fever is a contagious pestilence, and of *foreign* origin, we shall find no difficulty in accounting satisfactorily for its appearance this last season on Sullivan's Island, nor, indeed, for its introduction into any of our Southern sea-ports whose commerce with the West Indies is extensive, and whose quarantine restrictions are, like those in Charleston, a mere *sham*.

The first case of yellow fever which occurred at Charleston last summer, (in July,) was in the person of a man who left an infected vessel lying at quarantine, (the quarantine ground is within a few hundred yards of the city!) and died a few days afterwards in Tradd street. From the locality where this man died, the disease was distinctly traced to several other points where it broke out; and in due time it spread over the city as an epidemic. A multitude of the citizens of Charleston, (about 4,000,) in order to escape the pestilence, took refuge on this island. The intercourse between Sullivan's Island and Charleston was entirely unrestricted, and hundreds of the refugees spent every day in Charleston, and returned to their residences on the island every night. In the course of a few weeks after the disease had begun to spread as an epidemic in Charleston, several deaths from it occurred on the island, among those who had *recently* visited the city. This caused no alarm to the refugees, for they nearly all disbelieved in the communicability of the disease, and they had nothing to fear from local origin, as the sanitary condition of the island was at least as good as it had been for the last twenty years. It was, therefore, in *their* view, impossible that the disease could *spread*, for it had neither contagion to propagate it nor local cause to originate it. They moreover felt security in the past history of the island, for it has been but seldom, since 1824, that yellow fever has prevailed as an epidemic on Sullivan's Island.

It soon became apparent, however, after several deaths had occurred on the island, that whatever might be the source of the poison, the disease was *spreading* among those who had not visited Charleston for many months. Indeed, a large majority of those who died of the disease on the island were persons who had not visited Charleston since the epidemic broke out there; and many of them (nearly all the soldiers) had not been off the island for many months previously.

It seems to me that, if we regard yellow fever as a contagious disease, (a fact of which I entertain no *doubt*, and the truth of which I shall endeavor to *prove* on another occasion,) the facts here stated will satisfactorily account for its appearance and spread on a sandy, dry, healthy island, where no local cause of disease could be discovered, but where the population was much larger than it had been before, and the residences more crowded than they usually are in the largest cities.

In opposition to this view, it may be asked why it is, if yellow fever be communicable, it has not *always* spread on Sullivan's Island when it prevailed as an epidemic in Charleston, and when, at the same time, the intercourse with that city was unrestricted. This negative objection may be answered by asking why it is that the poisons of measles, scarlatina, and small-pox, *all of which diseases are undoubtedly contagious,* do not *always* spread when introduced into cities and crowded communities. It is notorious that all these diseases frequently occur sporadically, and it follows, therefore, that if this objection to the contagiousness of yellow fever have any force, it must be equally strong against that of measles, scarlatina, and small-pox.

In accordance with my views of contagion, I regard the removal and segregation of troops as a measure of the first importance whenever yellow fever appears in the vicinity of a garrison. Some years ago, (I believe in 1843,) a company of troops among whom this disease had broken out, at Key West, was, by my direction, promptly removed to Indian key, and there segregated. Several of the men were attacked with the disease on their way from Key West to Indian key,

but the cases being mild, yielded to treatment. After their arrival at Indian key, I inspected them regularly three times a day, separated those affected, and even cases of a suspicious character from all intercourse with those who were well, and kept them isolated in tents till they were perfectly restored to health. The result was that the disease did not spread, and not one man of the command died from the day it left Key West till it returned there in good health, about six weeks afterwards.

Fort Moultrie is very unfavorably situated as respects either removal or segregation. After yellow fever becomes epidemic in Charleston, there would be great risk in removing troops through that city to a healthy position in the country, and yet that is the only point of egress from this isolated position, unless they were shipped to some northern station. To segregate troops on this island, though not impracticable, would be very difficult, as the whole island forms but a small space, and is generally crowded with citizens who have daily intercourse with Charleston.

As soon as the disease began to spread among the troops, I suggested to the commanding officer the expediency of having them encamped on the beach, but was informed that there were no tents at the post. I then suggested their removal to Fort Sumpter; and after the Africans had been shipped from there, forty men (embracing the most intemperate portion of the command) were removed, and confined there till the epidemic disappeared. But six men of this detachment were attacked with yellow fever, and these were all promptly sent to the hospital at this post, as soon as they manifested the first symptoms of the disease. But two of them died, and there can be but little doubt that all of them imbibed the poison before their removal.

The ratio of cases among the men who were not removed (108 men and 46 cases) was 1 in $2\frac{1}{3}$, and that of deaths 1 in 4; while the ratio of cases in the Fort Sumpter detachment was only 1 in $6\frac{2}{3}$, and that of deaths 1 in 20. If the same ratio of cases and deaths had occurred in the Fort Sumpter detachment that did among the troops at Fort Moultrie, the cases would have been seventeen instead of six, and the deaths ten instead of two. Hence it is a fair inference that at least eight lives were saved by even this partial and retarded removal of troops. I say *at least* eight, because a large proportion of those in Fort Sumpter were the most intemperate men in the command; and the probability is, that had they remained on this island, over half of them would have fallen victims to the disease.

I have the honor to be, very respectfully, your obedient servant,

B. M. BYRNE,
Surgeon United States Army.

Brigadier General THOMAS LAWSON,
Surgeon General United States Army.

In his report of sick for the quarter ending September 30, 1859, Surgeon Byrne makes the following remarks:

"It will be seen that the health of the troops at Fort Moultrie has been remarkably good during the quarter. The same is true as regards the citizens of Sullivan's Island, and of the city of Charleston. Nothing can be perceived in the medical topography of Sullivan's Island, nor in the meteorological phenomena of the season, to explain the great contrast which this quarter presents when compared with the same quarter of 1858. It is worthy of remark in this connection that not a single case of yellow fever has been imported into the harbor of Charleston this year, up to this date, (September 30,) nor has a single case occurred in the city. In 1858, several cases of yellow fever had been imported into the harbor BEFORE the disease manifested itself in the city of Charleston. A system of drainage has been adopted and partly executed in Charleston within the last year, to which some of the advocates of the 'domestic origin' of yellow fever point as the cause of this year's exemption from the pestilence, but to all who will take a a less partial view of the question such a surmise will present no probability of its truth. Sul-

livan's Island, Savannah, Mobile, and New Orleans, in all of which places yellow fever prevailed to a frightful extent in 1858, were quite as exempt from that pestilence this year as was Charleston, although in not one of the former places has there been any known change in the medical topography or sanitary police."

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	3,390		3,465		3,337		3,411		3,401				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Diarrhœa	87	0	291	3	434	2	291	2	1,103	7	1 in	157	324
Dysenteria acuta	36	0	116	0	117	0	77	0	346	0	0 in	346	101
Dysenteria chronica	5	1	4	0	6	0	11	2	26	3	1 in	9	7.6
Enteritis	3	0	4	1	1	0	1	0	9	1	1 in	9	2.6
Hepatitis acuta	4	0	0	0	0	0	3	0	7	0	0 in	7	2
Hepatitis chronica	0	0	0	0	1	1	1	0	2	1	1 in	2	0.6
Obstipatio	49	0	98	0	152	0	115	0	414	0	0 in	414	121
All other diseases of this class	75	1	143	0	224	1	111	1	553	3	1 in	184	162
Total	259	2	656	4	935	4	610	5	2,460	15	1 in	164	723

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	3,390		3,465		3,337		3,411		3,401				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	10	0	7	0	4	2	18	0	39	2	1 in	19	11.4
Catarrhus	333	0	193	0	344	0	303	0	1,173	0	0 in	1,173	345
Phthisis pulmonalis	2	1	9	1	8	1	8	3	27	6	1 in	4.5	7.9
Pleuritis	13	0	16	0	5	0	6	0	40	0	0 in	40	11.7
Pneumonia	2	0	3	0	3	0	4	0	12	0	0 in	12	3.5
All other diseases of this class	2	0	6	1	4	0	6	1	18	2	1 in	9	5.2
Total	362	1	234	2	368	3	345	4	1,309	10	1 in	130	385
Rheumatismus	87	0	107	0	92	0	95	0	381	0	0 in	381	112

SOUTH INTERIOR REGION—EAST.

This region embraces that portion of the territory of the United States which is occupied by the States of Georgia, Alabama, Mississippi, and Louisiana. The principal military stations are Forts Jesup, Pike, and Wood; Baton Rouge and New Orleans Barracks; and Mount Vernon and Augusta Arsenals.

For the medical topography and diseases of these stations reference is made to the report of 1856.

DISEASES.

The following table, compiled from Abstract No. 2 of the Southern Division, gives the aggregate amount of sickness at the several stations above named, for a period of twenty-one years. During the last five years the only posts garrisoned by troops are Baton Rouge Barracks and Mount Vernon Arsenal.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	6,880	3,998	42	581	6.1
Second quarter	7,012	6,000	55	855	7.8
Third quarter	6,192	5,791	106	935	17.2
Fourth quarter	5,592	3,520	89	630	16
Annual ratio	6,419	19,309	292	3,008	47
Exclusive of cholera		19,189	260	2,989	40.5

It appears from this table that the average annual number of cases of disease to the number of officers and men in this region was 3 to 1; that the corresponding ratio of deaths was 1 to 21.98, or 4.7 per cent.; and that the proportion of deaths to the number of cases treated was 1 to 66.12, or 1.51 per cent. Exclusive of cholera, the deaths were 1 in 24.69, or 4.05 per cent.

FEVERS.

Quarters	First.		Second.		Third.		Fourth.		Year.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	6,880		7,012		6,192		5,592		6,419			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris congestiva	1	1	1	1	40	6	5	4	47	12	1 in 4	7.3
Febris continua communis	5	1	10	1	92	0	7	0	114	2	1 in 57	17.7
Febris intermittens quotidiana	253	0	356	0	701	0	370	1	1,680	1	1 in 1,680	261
Febris intermittens tertiana	431	0	549	0	600	0	301	0	1,881	0	0 in 1,881	293
Febris intermittens quartana	2	0	15	0	36	0	20	0	73	0	0 in 73	11
Febris remittens	48	0	131	1	188	1	88	5	455	7	1 in 65	70.8
Febris typhus et typhoides	4	1	3	1	5	1	4	0	16	3	1 in 5	2.5
Febris typhus icterodes	0	0	0	0	120	40	74	25	194	5	1 in 39	30
Total	744	3	1,065	4	1,782	48	869	35	4,460	90	1 in 50	694

The report of 1856 is referred to for information respecting this class of diseases, and particularly in regard to yellow fever. In the summer of 1858 the troops were removed from Baton Rouge Barracks to Camp Lawrence, some fifteen miles distant, and thus avoided the yellow fever of that year. The two cases and deaths of this disease reported in the third quarter of 1858 were men who had remained at Baton Rouge on special service.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	6,880		7,012		6,192		5,592		6,419			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	4	1	64	20	6	4	46	7	120	32	1 in 3.7	.....
Diarrhœa	392	9	1,013	1	739	8	358	9	2,502	27	1 in 18	390
Dysenteria acuta	164	3	438	7	309	3	155	2	1,066	15	1 in 71	166
Dysenteria chronica	15	3	14	0	23	6	10	4	62	13	1 in 5	9.6
Enteritis	5	1	4	0	18	1	4	1	31	3	1 in 10	4.8
Hepatitis acuta	2	0	7	0	9	0	8	0	26	0	0 in 26	4
Hepatitis chronica	5	0	4	0	3	0	2	1	14	1	1 in 14	2.2
Obstipatio	143	0	232	0	163	0	105	0	643	0	0 in 643	100
All other diseases of this class	185	2	375	1	283	2	164	1	1,007	6	1 in 168	157
Total	915	19	2,151	29	1,553	24	852	25	5,471	97	1 in 56	852
Exclusive of cholera									5,351	65	1 in 82	833

The report of 1856 is again referred to for details respecting cholera, as it appeared in this region, and particularly in New Orleans in 1848 and 1849. The cases of cholera reported in the second and third quarters of 1855 occurred at Baton Rouge Barracks. There is, however, no special report in relation to that epidemic.

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	6,880		7,012		6,192		5,592		6,419			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	35	0	30	0	26	1	20	0	111	1	1 in 111	17
Catarrhus	369	0	326	0	305	0	207	0	1,207	0	0 in 1,207	188
Phthisis pulmonalis	9	5	8	8	14	8	13	8	44	29	1 in 1.5	6.9
Pleuritis	46	1	39	0	41	0	40	0	166	1	1 in 166	25.8
Pneumonia	23	2	13	0	7	0	11	3	54	5	1 in 11	8.4
All other diseases of this class	6	0	9	1	9	2	9	0	33	3	1 in 11	5
Total	488	8	425	9	402	11	300	11	1,615	39	1 in 41	252
Rheumatismus	220	0	258	0	199	0	163	0	840	0	0 in 840	131

SOUTH INTERIOR REGION—WEST.

This region includes that portion of the area of the United States that lies between the Arkansas and Red rivers on the north and south, and the Mississippi river and the eastern slope of the Rocky Mountains on the east and west. The military stations are confined to

Arkansas and to the Indian Territory bordering upon or lying due west from that State. Fort Smith is the only post in the State of Arkansas. The stations in the Indian Territory that have been or are now occupied are Forts Gibson, Wayne, Towson, Washita, Arbuckle, and Camp Radziminski. The first three posts have been abandoned.

The medical topography and diseases of these posts will be found described in the report of 1856, with exception of Camp Radziminski, which is situated on Otter creek, at the southern base of the Wichita mountains, in longitude 99° 10′ W.; latitude 34° 33′ 50″ N. Otter creek has its source in the Wichita mountains, about twenty miles northeast from Camp Radziminski, and flows into the Red river five miles below that camp. The Wichita mountains rise immediately on the north of the camp, extending eastward for some thirty-five miles. To the west the country is hilly and broken, and to the south are high rolling prairies. Assistant Surgeon William A. Carswell, from whose sanitary report for the fourth quarter of the year 1858 the above facts have been obtained, remarks that the situation of Camp Radziminski is high and salubrious, its altitude being fully 1,100 feet above sea level. The prevailing winds in winter are from the north and northwest, the camp being protected in that direction by a strip of timber, which, though narrow, is quite dense. Changes of temperature are frequent and great.

The troops at this station, particularly the cavalry, have been employed in active campaigns against the Comanche Indians.

DISEASES.

The following table, compiled from Abstract No. 3 for this division, gives a condensed view of the sickness and mortality in this region for a period of twenty-one years, from January, 1839, to January, 1860:

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	12,672	8,126	67	641	5.3
Second quarter	13,457	10,380	64	771	4.7
Third quarter	12,053	13,536	111	1,123	9.2
Fourth quarter	11,067	9,469	56	855	5
Annual ratio	12,312	41,511	298	3,371	24.2
Exclusive of cholera		41,303	271	3,354	22

The proportion of cases of disease to the number of officers and men serving in this region is shown by the above table to be 3.37 to 1; and the corresponding ratio of deaths was 1 in 41.32, or 2.4 per cent. The proportion of deaths to the number of cases treated was 1 in 139.30, or 0.71 per cent. Exclusive of cholera, the proportion of deaths to the command was 1 in 45.43, or 2.2 per cent.; and to cases treated, 1 in 152.41, or 0.65 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	12,672		13,457		12,053		11,067		12,312			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris congestiva		1	0	0	10	5	1	3	11	9	1 in 1.2	0.9
Febris continua communis	16	1	58	0	61	1	21	2	156	4	1 in 36	12.6
Febris intermittens quotidiana	1,237	0	1,625	0	3,962	3	2,554	1	9,378	4	1 in 2,344	762
Febris intermittens tertiana	817	0	1,260	0	1,374	0	1,169	0	4,620	0	0 in 4,620	375
Febris intermittens quartana	59	0	40	0	43	0	79	0	221	0	0 in 221	18
Febris remittens	96	0	219	1	875	10	292	4	1,482	15	1 in 99	120
Febris typhus et typhoides	4	2	3	2	26	7	4	1	37	12	1 in 3	3
Febris typhus icterodes	0	0	0	0	4	0	1	0	5	0	0 in 5	0.4
Total	2,229	4	3,205	3	6,355	26	4,121	11	15,910	44	1 in 362	1,292

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	12,672		13,457		12,053		11,067		12,312			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	23	7	182	18	3	2	208	27	1 in 7.7	
Diarrhœa	476	6	1,070	2	1,091	6	686	1	3,323	15	1 in 221	269
Dysenteria acuta	147	1	557	3	487	10	230	8	1,421	22	1 in 65	115
Dysenteria chronica	20	4	43	3	14	1	42	7	119	15	1 in 8	9.6
Enteritis	5	0	5	1	20	3	9	2	39	6	1 in 6	3.1
Hepatitis acuta	5	0	12	0	7	0	2	0	26	0	0 in 26	2.1
Hepatitis chronica	3	0	6	0	1	0	1	0	11	0	0 in 11	0.9
Obstipatio	206	0	382	2	313	0	160	0	1,061	2	1 in 530	86
All other diseases of this class	233	2	414	1	383	7	221	2	1,251	12	1 in 104	101
Total	1,095	13	2,512	19	2,498	45	1,354	22	7,459	99	1 in 75	605
Exclusive of cholera									7,251	72	1 in 100	589

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	12,672		13,457		12,053		11,067		12,312				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis, acuta et chronica	117	2	52	1	27	1	66	0	262	4	1 in	65	21
Catarrhus	896	0	546	0	336	1	596	1	2,374	2	1 in	1,187	192
Phthisis pulmonalis	14	10	15	9	3	3	9	6	41	28	1 in	1.5	3.3
Pleuritis	87	1	69	0	55	0	50	0	261	1	1 in	261	21.2
Pneumonia	101	9	40	4	19	2	22	5	182	20	1 in	9	15.6
All other diseases of this class	32	2	23	1	17	3	17	0	89	6	1 in	15	7
Total	1,247	24	745	15	457	10	760	12	3,209	61	1 in	526	260
Rheumatismus	421	1	380	1	291	0	342	0	1,434	2	1 in	717	116

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN THE

SOUTHERN DIVISION.

No. I.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

FIRST QUARTER.

CLASSES OF DISEASES.	Years	[illegible]-1854		1855.		1856.		1857.		1858.		1859		Total.	
	Mean strength	772		112.		134.		131.		148.		123.		3,390.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	[illegible]	4		1				1						6	
	[illegible]	13				2		2		3				20	
	[illegible]	64						9		2		3		88	
	[illegible]	15												16	
	[illegible]	9								2				11	
	Febris typhus et typhoides	1												1	
	[illegible]														
Eruptive fever	Lues [illegible]	1												1	
	[illegible]	1												1	
	Scarlatina														
	Variola														
	Varicella														
	Cynanche [illegible]														
Diseases of the organs connected with the digestive system	[illegible]	32		1		10		15		7		5		87	
	[illegible]	7						2		3				36	
	[illegible]		1											5	1
	Ileus	3												4	
	Hepatitis	2						1						3	
	[illegible]														
	Odontalgia	30		1		4		8		1		5		49	
	Abdominalgia	62		5		1	1			1		1		70	1
Diseases of the respiratory system	Bronchitis, catarrh, chronica	8								1		1		10	
	Catarrhus	291		7		3		5		15		14		333	
	Phthisis pulmonalis	2	1											2	1
	Pleuritis	9		1		3								13	
	Pneumonia	2												2	
	Abdominalgia	2												2	
	Capitalgia	14		1										15	
Diseases of the brain and nervous system	Delirium tremens	14		4						1		2		21	
	Encephalitis	5												5	
	Neuralgia	1										2		3	
	All other diseases	6	1					1						7	1
	Gonorrhœa	29				1		1		3		2		36	
Diseases of the urinary and genital organs	Strictura urethræ	3												3	
	Syphilis primitiva	27		1		1		1		2				32	
	Syphilis consecutiva	1												1	
	All other diseases	15		1		1				1				19	
Diseases of the serous and cellular vessels	Ascites														
	Anasarca	2												2	
Diseases of the fibrous and muscular tissues	Podagra					1	1							1	1
	Rheumatismus	9												9	
	Febris	77		1		2		1		1		7		87	
Abscesses and ulcers	Phlegmon et abscessus	93		6		7		6		5		5		122	
	Ulcus	28										1		29	
	Ambustio	5				2								7	
	Amputatio														
Wounds and injuries	Contusio	63				9		29		4		10		129	
	Frictura	11	1											11	1
	Luxatio	2								1				3	
	Punctio	2												2	
	Subluxatio	28						4		1				33	
	Vulnus incisum	30				5		6				2		43	
	Vulnus laceratum	16		8				2		4		2		32	
	Vulnus punctum	3						1						4	
	Vulnus sclopeticum	2												2	
Miscellaneous	Debilitas	6												6	
	Ebrietas	22				3				6		15		46	
	Hæmorrhois	3						1						4	
	Hernia	1												1	
	Morbi cutis	8										2		10	
	Morbi oculi	33				1						1		35	
	Scorbutus	3												3	
	Suicidium														
	All other diseases	112	2	13		4		1		7		1		138	2
	Total	1,239	6	49		63	2	98		71		85		1,655	8

AMONG THE TROOPS AT POSTS IN THE SOUTH ATLANTIC REGION.

SECOND QUARTER.

CLASSES OF DISEASES.	SPECIFIC DISEASES.	1839 to 1854 Cases	1839 to 1854 Died	1855. Cases	1855. Died	1856. Cases	1856. Died	1857. Cases	1857. Died	1858. Cases	1858. Died	1859. Cases	1859. Died	TOTAL Cases	TOTAL Died
	YEARS	1839 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL	
	MEAN STRENGTH	2,875.		107.		99.		122.		150.		112.		3,465.	
Fevers	Febris continua communis	11		2										13	
	Febris inter. quotidiana	39		1		1		2		8		2		56	
	Febris intermittens tertiana	31		1				8		23		2		65	
	Febris intermittens quartana	10												10	
	Febris remittens	31								2		2		35	
	Febris typhus et typhoides	2	1											2	1
	Febris typhus icteroides	3	1											3	1
Eruptive fevers	Erysipelas	3												3	
	Rubeola	8	5											8	5
	Scarlatina														
	Varicla														
	Variolodes														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	201	2	17		5	1	26		26		13		291	3
	Dysenteria acuta	101								12		3		116	
	Dysenteria chronica	4												4	
	Enteritis	2	1					2						4	1
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	50				2		13		27		6		98	
	All other diseases	121		7		8		3		4				143	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	7												7	
	Catarrhus	165		3		5		4		6		10		193	
	Phthisis pulmonalis	8	1							1				9	1
	Pleuritis	11		4		1								16	
	Pneumonia	3												3	
	All other diseases	5	1									1		6	1
Diseases of the brain and nervous system.	Cephalalgia	13								1				14	
	Delirium tremens	16		3										19	
	Epilepsia	6												6	
	Neuralgia	8										3		11	
	All other diseases	7	1							1				8	1
Diseases of the urinary and genital organs.	Gonorrhœa	35				2				5		3		45	
	Stricture urethræ	2												2	
	Syphilis primitiva	10				2		1		2				15	
	Syphilis consecutiva	1												1	
	All other diseases	15				1		1						17	
Diseases of the serous and exhalent vessels.	Ascites	1												1	
	All other diseases	1												1	
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra	2												2	
	Rheumatismus	83				3		1		15		5		107	
Abscesses and ulcers	Fistula	1												1	
	Phlegmon et abscessus	72		6		4		6		4		7		99	
	Ulcus	15		1						3				19	
Wounds and injuries	Ambustio	2										1		3	
	Amputatio														
	Contusio	82				7		9		11		9		118	
	Fractura	6				1								7	
	Luxatio	2												2	
	Punctio	1												1	
	Sub luxatio	25				2		1						29	
	Vulnus incisum	44						2						46	
	Vulnus laceratum	8		10		1		2		8		8		37	
	Vulnus punctum	5												5	
	Vulnus sclopeticum	3												3	
Miscellaneous	Debilitas	47						2		6		1		56	
	Ebrietas	18		3				1		18		23		62	
	Hæmorrhois	5				1		1		1				8	
	Hernia	4								1				5	
	Morbi cutis	19		2						1		3		25	
	Morbi oculi	64		1						2		1		68	
	Scorbutus	4								2				6	
	Suicidium														
	All other diseases	92	2	12		6		5		5		5		125	2
	Total	1,575	15	73		55	1	90		192		108		2,091	16

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1854 & 54		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,576.		128.		100.		123.		144.		106.		3,337.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	15	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	17	1
	Febris inter. quotidiana	73	1	5	.....	2	.....	1	.....	.....	.....	.....	.....	81	1
	Febris intermittens tertiana	61	.....	1	.....	.....	.....	5	.....	31	.....	.....	.....	167	.....
	Febris intermittens quartana	9	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	10	.....
	Febris remittens	164	3	4	.....	2	.....	.....	.....	1	.....	1	.....	172	3
	Febris typhus et typhoides	14	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	2
	Febris typhus icterodes	5	.....	.....	.....	.....	.....	.....	.....	32	15	.....	.....	37	15
Eruptive fevers	Erysipelas	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa	329	2	25	.....	6	.....	48	.....	23	.....	12	.....	434	2
	Dysenteria acuta	75	.....	15	.....	1	.....	6	.....	13	.....	4	.....	117	.....
	Dysenteria chronica	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Enteritis	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	Obstipatio	95	.....	5	.....	7	.....	23	.....	15	.....	7	.....	152	.....
	All other diseases	196	1	9	.....	2	.....	4	.....	12	.....	1	.....	224	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	4	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	2
	Catarrhus	307	.....	4	.....	2	.....	23	.....	5	.....	3	.....	344	.....
	Phthisis pulmonalis	8	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	8	1
	Pleuritis	3	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
	Pneumonia	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	All other diseases	3	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	4	.....
Diseases of the brain and nervous system.	Cephalalgia	27	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	28	.....
	Delirium tremens	11	.....	3	.....	1	.....	1	.....	1	.....	.....	.....	17	.....
	Epilepsy	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	11	.....
	Neuralgia	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	6	.....
	All other diseases	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	2
Diseases of the urinary and genital organs.	Gonorrhœa	51	.....	12	.....	5	.....	2	.....	5	.....	8	.....	83	.....
	Stuctura urethræ	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
	Syphilis primitiva	20	.....	.....	.....	6	.....	1	.....	1	.....	.....	.....	28	.....
	Syphilis consecutiva	6	.....	7	.....	.....	.....	1	.....	.....	.....	3	.....	17	.....
	All other diseases	14	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	.....
Diseases of the serous and exhalent vessels.	Ascites	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1
	All other diseases	12	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	15	.....
Diseases of the fibrous and muscular structures.	Pemio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	76	.....	.....	.....	.....	.....	7	.....	7	.....	2	.....	92	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phlegmon et abscessus	112	.....	13	.....	4	.....	5	.....	9	.....	6	.....	149	.....
	Ulcus	23	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	24	.....
Wounds and injuries	Ambustio	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	95	.....	8	.....	5	.....	8	.....	7	.....	7	.....	130	.....
	Fractura	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Luxatio	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Punctio	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Subluxatio	26	.....	.....	.....	1	.....	4	.....	.....	.....	.....	.....	31	.....
	Vulnus morsum	75	.....	2	.....	1	.....	.....	.....	2	.....	6	.....	86	.....
	Vulnus laceratum	7	.....	.....	.....	1	.....	3	.....	8	.....	.....	.....	19	.....
	Vulnus punctum	6	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	8	.....
	Vulnus sclopeticum	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Miscellaneous	Debilitas	9	.....	2	.....	.....	.....	4	.....	10	.....	.....	.....	25	.....
	Ebrietas	51	.....	3	.....	.....	.....	3	.....	15	.....	19	.....	91	.....
	Hæmorrhois	17	.....	1	.....	.....	.....	2	.....	2	.....	.....	.....	22	.....
	Hernia	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Morbi cutis	31	.....	1	.....	.....	.....	.....	.....	2	.....	.....	.....	34	.....
	Morbi occult	61	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	62	.....
	Scorbutus	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	194	.....	10	.....	5	.....	6	.....	7	.....	8	.....	230	.....
	Total	2362	17	141	.....	56	.....	160	1	216	15	92	.....	3,027	38

AMONG THE TROOPS AT POSTS IN THE SOUTH ATLANTIC REGION.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,818.		112.		137.		134.		119.		91.		3,411.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases	Died.
Fevers	Febris continua communis.	14	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	17	.....
	Febris inter quotidiana	21	.....	5	.....	7	.....	.....	.....	2	.....	.....	.....	35	.....
	Febris intermittens tertiana	70	.....	6	.....	15	.....	6	.....	15	.....	.....	.....	112	.....
	Febris intermittens quartana	17	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	18	.....
	Febris remittens	61	2	.....	.....	3	.....	.....	.....	.....	.....	1	.....	65	2
	Febris typhus et typhoides	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Febris typhus icterodes	32	4	1	1	.....	.....	.....	.....	17	13	.....	.....	50	18
Eruptive fevers	Erysipelas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	293	2	21	.....	30	.....	25	.....	5	.....	6	.....	291	2
	Dysenteria acuta	57	.....	2	.....	6	.....	3	.....	6	.....	3	.....	77	.....
	Dysenteria chronica	10	2	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	11	2
	Enteritis	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis acuta	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	78	.....	2	.....	19	.....	5	.....	9	.....	2	.....	115	.....
	All other diseases	86	1	9	.....	6	.....	6	.....	2	.....	2	.....	111	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	16	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	18	.....
	Catarrhus	212	.....	5	.....	20	.....	46	.....	9	.....	11	.....	303	.....
	Phthisis pulmonalis	8	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	3
	Pleuritis	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	....
	Pneumonia	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	All other diseases	2	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	1
Diseases of the brain and nervous system.	Cephalalgia	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....
	Delirium tremens	10	.....	2	.....	1	.....	.....	.....	1	.....	1	.....	15	.....
	Epilepsia	7	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	9	.....
	Neuralgia	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	8	.....
	All other diseases	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....
Diseases of the urinary and genital organs.	Gonorrhœa	45	.....	4	.....	.....	.....	5	.....	4	.....	4	.....	62	.....
	Stricture urethræ	3	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	5	.....
	Syphilis primitiva	22	.....	2	.....	2	.....	1	.....	.....	.....	.....	.....	27	.....
	Syphilis consecutiva	1	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	3	.....
	All other diseases	15	.....	2	.....	1	.....	.....	.....	1	.....	5	.....	24	.....
Diseases of the serous and exhalent vessels.	Ascites	6	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	1
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	70	.....	3	.....	5	.....	5	.....	7	.....	5	.....	95	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phlegmon et abscessus	95	.....	1	.....	2	.....	8	.....	7	.....	.....	.....	113	.....
	Ulcus	27	.....	.....	.....	1	.....	3	.....	.....	.....	2	.....	33	.....
Wounds and injuries	Ambustio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	80	.....	9	.....	31	.....	15	.....	8	.....	5	.....	148	.....
	Fractura	5	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	1
	Luxatio	2	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Punitio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	33	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	36	.....
	Vulnus incisum	38	.....	4	.....	2	.....	1	.....	2	.....	6	.....	53	.....
	Vulnus laceratum	17	.....	.....	.....	4	.....	7	.....	6	.....	.....	.....	34	.....
	Vulnus punctum	12	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	13	1
	Vulnus sclopeticum	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
Miscellaneous	Debilitas	11	2	.....	.....	1	.....	4	.....	2	.....	.....	.....	18	2
	Ebrietas	49	.....	.....	.....	1	.....	1	.....	15	.....	6	.....	72	.....
	Hemorrhois	10	.....	.....	.....	5	.....	4	.....	.....	.....	1	.....	20	.....
	Hernia	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Morbi cutis	9	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....
	Morbi oculi	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	36	.....
	Scorbutus	6	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	98	1	2	.....	4	.....	6	1	4	.....	11	.....	125	2
	Total	1,644	21	87	1	178	.....	154	1	128	13	76	.....	2,267	36

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,425.		100.		84.		74.		102.		95.		6,880.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua	1	1											1	1
	Febris continua communis	5	1											5	1
	Febris intermittens quotidiana	242		7		10		7		9		8		253	
	Febris intermittens tertiana	407		2		11		9		1		5		431	
	Febris intermittens quartana	2												2	
	Febris remittens	3						1				1		48	
	Febris typhosa gravior	3												3	1
	Febris typhus petechialis														
	Erysipelas	2												2	
	Rheumatism	13												13	
Eruptive fevers	Scarlatina														
	Variola														
	Varicella														
	Cholera Asiatica	4	1											4	1
Diseases of the organs connected with the digestive system.	Diarrhœa	382	9	6		6		5		3		1		392	9
	Dysenteria acuta	160	3	3								1		164	3
	Dysenteria chronica	14	2					1	1					15	3
	Enteritis	5	1											5	1
	Hepatitis acuta	1								1				2	
	Hepatitis chronica	5												5	
	Ostipatio	134		1		1		1		4		2		143	
	All other diseases	178	2	1						1		2		183	2
Diseases of the respiratory system	Bronchitis acuta et chronica	31		4										35	
	Catarrhus	365						1				3		369	
	Phthisis pulmonalis	8	5							1				9	5
	Pleuritis	44	1					1						46	1
	Pneumonia	22	2							1				23	2
	All other diseases	6												6	
Diseases of the brain and nervous system.	Cephalalgia	72						2		1				75	
	Delirium tremens	57	2			1	1			3				61	3
	Epilepsia	12						2						14	
	Neuralgia	10										1		11	
	All other diseases	13	1			1								14	1
Diseases of the urinary and genital organs.	Gonorrhœa	80		1				3		2		3		88	
	Stricturæ urethræ	4												4	
	Syphilis primitiva	56												56	
	Syphilis constitutiva	15												15	
	All other diseases	21						1						22	
Diseases of the serous and exhalant vessels.	Ascites														
	All other diseases	6	2											8	2
Diseases of the fibrous and muscular structures	Pertussis	1												1	
	Podagra														
Abscesses and ulcers	Rachialgia	222				3				3		2		229	
	Fistula	3												3	
	Phlegmonoi abscessus	138		7		3		2		3				153	
	Ulcus	94				1		3						98	
Wounds and injuries	Ambustio	23				1								24	
	Amputatio														
	Contusio	222								3		1		226	
	Fractura	11												11	
	Luxatio	6										1		7	
	Punctio	2												2	
	Subluxatio	81		3				2		2				88	
	Vulnus morsum	100		3		1		2		1				107	
	Vulnus laceratum	12		2		1				3				18	
	Vulnus punctum	12		1	1									13	1
	Vulnus sclopeticum	13	2											13	2
Miscellaneous	Debilitas	22						1						23	
	Ebrietas	101				1								102	
	Hæmorrhois	37						4		1				42	
	Hernia	13								1		1		15	
	Morbi cutis	17		2				1						20	
	Morbi oculi	84								1		1		86	
	Scorbutus	3												3	
	All other diseases	197	3	2		3		1						203	3
	Total	3,780	39	48	1	43	1	46	1	45		36		3,998	42

AMONG THE TROOPS AT POSTS IN THE SOUTH INTERIOR REGION—EAST.

SECOND QUARTER.

CLASSES OF DISEASES.		Years	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
		Mean strength	6,439.		218.		79.		92.		89.		95.		7,012.	
	SPECIFIC DISEASES.		Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva								1	1					1	1
	Febris continua communis		9		1	1									10	1
	Febris inter. quotidiana		242		38		24		9		2		35		350	
	Febris intermittens tertiana		498		15		12		7		6		11		549	
	Febris intermittens quartana		15												15	
	Febris remittens		123	1	2				2		2		2		131	1
	Febris typhus et typhoides		2	1							1				3	1
	Febris typhus icterodes															
Eruptive fevers	Erysipelas		9	1											9	1
	Rubeola		10												10	
	Scarlatina															
	Variola															
	Variolodes		1												1	
Diseases of the organs connected with the digestive system.	Cholera Asiatica		32	9	32	11									64	20
	Diarrhœa		894	1	100		3		6		1		6		1,013	1
	Dysenteria acuta		409	7	23		5		1						438	7
	Dysenteria chronica		13										1		14	
	Enteritis		3				1								4	
	Hepatitis acuta		7												7	
	Hepatitis chronica		3										1		4	
	Obstipatio		291		25		2				2		2		322	
	All other diseases		351	1	12		3		3		3		2		374	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica		42		8										50	
	Catarrhus		310		8		1		4				3		326	
	Phthisis pulmonalis		8	7							1				9	7
	Pleuritis		35		2				2						39	
	Pneumonica		10		3										13	
	All other diseases		8	1	1										9	1
Diseases of the brain and nervous system.	Cephalalgia		189		14		2		3						208	
	Delirium tremens		70	5	1				1						72	5
	Epilepsia		17												17	
	Neuralgia		18												18	
	All other diseases		8												8	
Diseases of the urinary and genital organs.	Gonorrhœa		107		4		1		7		4		1		124	
	Stricture urethræ		5												5	
	Syphilis primitiva		40		1						1				42	
	Syphilis consecutiva		14		1										15	
	All other diseases		29	1	4		1		1		1				36	1
Diseases of the serous and exhalent vessels.	Ascites		2	1											2	1
	All other diseases		7	1	1										8	1
Diseases of the fibrous and muscular structures.	Pemio															
	Podagra															
	Rheumatismus		248		3				1		1		2		255	
Abscesses and ulcers	Fistula		6												6	
	Phlegmon et abscessus		155		12				5		1				173	
	Ulcus		88		2		1								91	
Wounds and injuries	Ambustio		17		2		1								20	
	Amputatio		2												2	
	Contusio		270	1	4				1		1				276	1
	Fractura		7												7	
	Luxatio		9												9	
	Punctio															
	Subluxatio		89		5		1		2						97	
	Vulnus incisum		112		1		1		2						116	
	Vulnus lacceratum		20		1		3						1		25	
	Vulnus punctum		14	1	1				1				1		17	1
	Vulnus sclopeticum		5												5	
Miscellaneous	Debilitas		31		1		2								34	
	Ebrietas		143		3		1								147	
	Hæmorrhoïs		50		2				2						54	
	Hernia		25												25	
	Morbi cutis		33		1		1								35	
	Morbi oculi		95		1		1				1				98	
	Scorbutus		8	1											8	1
	All other diseases		270		18	1	1		4						293	1
	Total		5,406	40	353	13	68		65	1	39	1	69		6,000	56

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	5,583.		260.		77.		92		85.		95.		6,192.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	36	5	.....	1	1	.....	.....	.....	2	.....	1	.....	40	6
	Febris continua communis	61	.....	19	.....	3	.....	1	.....	7	.....	1	.....	92	.....
	Febris intermittens quotidiana	539	.....	40	.....	19	.....	16	.....	50	.....	27	.....	701	.....
	Febris intermittens tertiana	434	.....	84	.....	15	.....	7	.....	52	.....	8	.....	600	.....
	Febris intermittens quartana	33	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	36	.....
	Febris remittens	180	1	1	.....	.....	.....	1	.....	2	.....	4	.....	188	1
	Febris typhus et typhoides	2	1	.....	.....	.....	.....	2	.....	1	.....	.....	.....	5	1
	Febris typhus icteroides	118	38	.....	.....	.....	.....	.....	.....	2	2	.....	.....	120	40
Eruptive fevers	Erysipelas	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Influenza	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicelloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	3	3	3	1	.....	.....	.....	.....	.....	.....	.....	.....	6	4
	Diarrhœa	670	7	64	1	4	.....	6	.....	4	.....	5	.....	739	8
	Dysenteria acuta	241	1	56	2	4	.....	3	.....	3	.....	.....	.....	309	3
	Dysenteria chronica	22	5	.....	.....	.....	.....	.....	.....	.....	.....	1	1	23	6
	Enteritis	17	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	1
	Hepatitis acuta	7	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	9	.....
	Hepatitis chronica	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Obstipatio	126	.....	31	.....	1	.....	1	.....	1	.....	3	.....	163	.....
	All other diseases	248	1	29	1	4	.....	.....	.....	1	.....	1	.....	283	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	15	1	5	.....	.....	.....	6	.....	.....	.....	.....	.....	26	1
	Catarrhus	300	.....	3	.....	1	.....	.....	.....	1	.....	.....	.....	305	.....
	Phthisis pulmonalis	14	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	8
	Pleuritis	40	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	41	.....
	Pneumonia	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
	All other diseases	8	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	2
Diseases of the brain and nervous system.	Cephalalgia	133	1	6	.....	2	.....	1	.....	.....	.....	.....	.....	139	1
	Delirium tremens	45	5	.....	.....	1	.....	4	1	1	.....	1	1	52	7
	Epilepsia	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....
	Neuralgia	13	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	14	.....
	All other diseases	20	3	1	1	1	1	.....	.....	1	.....	.....	.....	23	5
Diseases of the urinary and genital organs.	Gonorrhœa	64	.....	.....	.....	1	.....	6	.....	2	.....	2	.....	75	.....
	Stricture urethræ	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Syphilis primitiva	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29	.....
	Syphilis consecutiva	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	All other diseases	16	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	18	.....
Diseases of the serous and exhalent vessels.	Ascites	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	All other diseases	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	1
Diseases of the fibrous and muscular structures.	Perno	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	194	.....	1	.....	1	.....	2	.....	.....	.....	1	.....	199	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phlegmon et abscessus	280	.....	21	.....	2	.....	.....	.....	7	.....	4	.....	314	.....
	Ulcus	94	.....	3	.....	1	.....	.....	.....	.....	.....	.....	.....	98	.....
Wounds and injuries	Ambustio	27	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	28	.....
	Amputatio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	176	1	2	.....	2	.....	.....	.....	1	.....	.....	.....	180	1
	Fractura	8	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Luxatio	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Subluxatio	56	.....	.....	.....	1	.....	.....	.....	2	.....	1	.....	57	.....
	Vulnus incisum	78	.....	2	.....	1	.....	.....	.....	.....	.....	1	.....	82	.....
	Vulnus laceratum	7	.....	2	.....	1	.....	1	.....	2	.....	.....	.....	13	.....
	Vulnus punctum	10	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	13	.....
	Vulnus sclopeticum	4	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	5	3
Miscellaneous	Debilitas	107	.....	3	.....	.....	.....	1	.....	.....	.....	.....	.....	111	.....
	Ebrietas	113	1	.....	.....	1	.....	2	.....	.....	.....	.....	.....	116	1
	Hæmorrhois	22	1	4	.....	1	.....	.....	.....	1	.....	.....	.....	28	1
	Hernia	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	.....
	Morbi cutis	31	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	33	.....
	Morbi oculi	60	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	61	.....
	Scorbutus	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....
	All other diseases	254	2	29	1	3	.....	3	.....	1	.....	1	.....	291	3
	Total	5,053	91	419	9	75	1	67	1	114	2	63	2	5,791	106

AMONG THE TROOPS AT POSTS IN THE SOUTH INTERIOR REGION—EAST.

FOURTH QUARTER.

CLASSES OF DISEASES.		Years	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		Total	
		Mean strength	5,228.		78.		85.		98.		81.		22.		592.	
		SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers		Febris congestiva	5	4											5	4
		Febris continua communis	4		1				2						7	
		Febris inter. quotidiana	283	1	34		5		12		36				370	1
		Febris intermittens tertiana	261		16		4		5		10		2		301	
		Febris intermittens quartana	20												20	
		Febris remittens	85	5	1								1		88	5
		Febris typhus et typhoides	4												4	
		Febris typhus ictericides	74	25											74	25
Eruptive fevers		Erysipelas	2												2	
		Rubeola	3	1											3	1
		Scarlatina														
		Variola	1												1	
		Varicloides														
Diseases of the organs connected with the digestive system.		Cholera Asiatica	46	7											46	7
		Diarrhœa	313	8	5		7		2		1	1			358	9
		Dysenteria acuta	151	1	1		3	1							155	2
		Dysenteria chronica	9	4			1								10	4
		Enteritis	3	1	1										4	1
		Hepatitis acuta	7								1				8	
		Hepatitis chronica	2	1											2	1
		Obstipatio	101				2		1				1		105	
		All other diseases	156		2		1	1	1				4		164	1
Diseases of the respiratory system.		Bronchitis, acuta et chronica	16		3				1						20	
		Catarrhus	200		2				1		2		2		207	
		Phthisis pulmonalis	13	8											13	8
		Pleuritis	38				2								40	
		Pneumonia	7	2			1		1		2		1		11	3
		All other diseases	9												9	
Diseases of the brain and nervous system.		Cephalalgia	48		2		3								53	
		Delirium tremens	48	1	1						1				50	1
		Epilepsia	6												6	
		Neuralgia	4						1						5	
		All other diseases	13	5											13	5
Diseases of the urinary and genital organs.		Gonorrhœa	63				1						1		65	
		Strictura urethræ	3												3	
		Syphilis primitiva	24				2								26	
		Syphilis consecutiva	19												19	
		All other diseases	21		1		1						1		24	
Diseases of the serous and exhalent vessels.		Ascites	2	3											2	3
		All other diseases	7												7	
Diseases of the fibrous and muscular structures.		Pernio	1												1	
		Podagra														
		Rheumatismus	157				2		1		2		1		163	
Abscesses and ulcers		Fistula	4												4	
		Phlegmon et abscessus	106		5		3		3		2				119	
		Ulcus	78				1								79	
Wounds and injuries		Ambustio	20												20	
		Contusio	188		1										189	
		Fractura	6	1											6	1
		Luxatio	8				1								9	
		Punctio	2												2	
		Sub luxatio	46				4		2		1		1		54	
		Vulnus morsum	84		1		2						3		87	
		Vulnus laceratum	20		1				1						22	
		Vulnus punctum	11		1						1				13	
		Vulnus sclopeticum	4												4	
Miscellaneous		Debilitas	31		4		2								40	
		Ebrietas	106	3											106	3
		Hæmorrhois	25												25	
		Hernia	20												20	
		Morbi cutis	9												9	
		Morbi oculi	68		1				1						70	
		Scorbutus	8												8	
		Suicidium			1	1									1	1
		All other diseases	165	3	1				1		2				169	3
		Total	3,272	84	86	1	48	2	36		61	2	17		3,520	89

No. 3.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER													
	YEARS	1839 to 1854.		1855.		1856.		1857		1858		1859		TOTAL.	
	MEAN STRENGTH	10,195.		368.		520.		494.				1,095.		12,672	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva						1								1
	Febris continua communis	15	1									1		16	1
	Febris inter. quotidiana	1,108		16		49		24				40		1,237	
	Febris intermittens tertiana	748		6		21		15				28		817	
	Febris intermittens quartana	58										1		59	
	Febris remittens	85		5		1						5		96	
	Febris typhus et typhoides	3	2					1						4	2
	Febris typhus petechodes														
Eruptive fevers	Erysipelas	13	1	1										14	1
	Rubeola	2												2	
	Scarlatina	1												1	
	Variola														
	Varioloides	2												2	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	366	6	19		34		10				57		476	6
	Dysenteria acuta	136	1	4		4		1				2		147	1
	Dysenteria chronica	18	3				1	2						20	1
	Enteritis	5												5	
	Hepatitis acuta	4										1		5	
	Hepatitis chronica	2										1		3	
	Obstipatio	173		6		7		2				18		206	
	All other diseases	197	2	6		5		1				24		233	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	90	2	2		7		8				10		117	2
	Catarrhus	679		11		44		18				144		896	
	Phthisis pulmonalis	7	9			1	1					6		14	10
	Pleuritis	80	1	4		1		1				1		87	1
	Pneumonia	91	7			2	1	7				1	1	101	9
	All other diseases	24		1			1					7	1	32	2
Diseases of the brain and nervous system	Cephalalgia	29		1		2						3		35	
	Delirium tremens	66	4	2		6		3				2		79	4
	Epilepsia	21		1										22	
	Neuralgia	29				2		3				3		37	
	All other diseases	31	3					2				1	1	34	4
Diseases of the urinary and genital organs.	Gonorrhœa	146		1		7		5				3		162	
	Stricture urethræ	4						2				1		7	
	Syphilis primitiva	43				2						3		48	
	Syphilis consecutiva	15										2		17	
	All other diseases	52			1	2		5				4	1	63	2
Diseases of the serous and exhalent vessels	Ascites	1	2											1	2
	All other diseases	6	2									2	1	8	3
Diseases of the fibrous and muscular structures.	Pernio	23						1						24	
	Podagra	1												1	
	Rheumatismus	358	1	4		11		5				43		421	1
	Fistula	2										1		3	
Abscesses and ulcers	Phlegmon et abscessus	314		26		26		7				46		419	
	Ulcus	147		13		10		1				12		183	
Wounds and injuries	Ambustio	39		11		3						1		54	
	Amputatio														
	Contusio	393		23		22		13				41		492	
	Fractura	14		1		1		1				1		18	
	Luxatio	12		1										13	
	Punctio	10												10	
	Subluxatio	113		2		2		1				12		130	
	Vulnus morsum	232	1	6		9		7				21		275	1
	Vulnus lacceratum	26		1		8		4				12		51	
	Vulnus punctum	19										8	1	27	1
	Vulnus sclopeticum	5		1		1		2				5		14	
Miscellaneous	Debilitas	13	1									4		17	1
	Ebrietas	70		2		2		4				1		79	
	Hæmorrhois	35		2		2		2				7		48	
	Hernia	16						1						17	
	Morbi cutis	29		3		1		1				5		39	
	Morbi oculi	145		3		7		1				12		168	
	Scorbutus	24		2		33	1	1				4		64	1
	All other disease	409	4	2		6		1				38	1	456	5
	Total	6,789	53	189	1	340	6	163				645	7	8,126	67

AMONG THE TROOPS AT POSTS IN THE SOUTH INTERIOR REGION—WEST.

SECOND QUARTER.

CLASSES OF DISEASES.	Years	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	10,990.		425.		626.		459.				954.		13,457.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva														
	Febris continua communis	52		1				1				4		58	
	Febris inter. quotidiana	1,430		23		131		20				21		1,625	
	Febris intermittens tertiana	1,116		15		70		12				47		1,260	
	Febris intermittens quartana	36		1		3								40	
	Febris remittens	197		14		7						1	1	219	1
	Febris typhus et typhoides	2	2	1										3	2
	Febris typhus heteroides														
Eruptive fevers	Erysipelas	29										1		30	
	Rubeola	3												3	
	Scarlatina	1												1	
	Varicella														
	Variolodes	4												4	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	23	7											23	7
	Diarrhœa	905	2	28		35		6				94		1,070	2
	Dysenteria acuta	484	3	7		23		3				43		557	3
	Dysenteria chronica	30	1	3	2			2				8		43	3
	Enteritis	5	1											5	1
	Hepatitis acuta	11										1		12	
	Hepatitis chronica	3										3		6	
	Obstipatio	332	2	9		12		4				25		382	2
	All other diseases	377	1	5		20		1				11		414	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	43	1	1		3		3				2		52	1
	Catarrhus	460		14		5		16				51		546	
	Phthisis pulmonalis	9	9									6		15	9
	Pleuritis	67		1		1								69	
	Pneumonia	37	3			1		1	1			1		40	4
	All other diseases	19	1			2						2		23	1
Diseases of the brain and nervous system.	Cephalalgia	75		2		3						2		82	
	Delirium tremens	36	1	1				1				2		40	1
	Epilepsia	28		1										29	
	Neuralgia	27		1		7		1				1		37	
	All other diseases	42	2	1				1				1		45	2
Diseases of the urinary and genital organs.	Gonorrhœa	154		1		9		3				6		173	
	Stricture urethræ	4						1				4		9	
	Syphilis primitiva	60				5		2						67	
	Syphilis consecutiva	17		3		1								21	
	All other diseases	69				3		2				5		79	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases	5		1		1						1		8	
Diseases of the fibrous and muscular structures.	Pemer	3												3	
	Podagra	2												2	
	Rheumatismus	328	1	11		16		6				19		380	1
Abscesses and ulcers	Fistula					2								2	
	Phlegmon et abscessus	337		33		25		5				42		442	
	Ulcus	177		3		2						7		189	
Wounds and injuries	Ambustio	42		1		2						3	2	48	2
	Amputatio	3												3	
	Contusio	467	2	7		16		6				20		516	2
	Fractura	17		2		3						5		27	
	Luxatio	27		1		4		1						33	
	Punctio											2		2	
	Sub luxatio	97		4		3		4				8		116	
	Vulnus morsum	212		3		7		6				11		239	
	Vulnus laceratum	31		2		9		4				9		55	
	Vulnus punctum	24		1		1		4				13	2	43	2
	Vulnus sclopeticum	15				1		2				6	1	24	1
Miscellaneous	Debilitas	41				1		1				3		46	
	Ebrietas	116	3	1		5		6				1		129	3
	Hæmorrhois	43		1		5		2				3		54	
	Hernia	16		2								1		19	
	Morbi cutis	33						3				15		51	
	Morbi oculi	184		4		7		1				7		203	
	Scorbutus	42	3	11		7	1	1				10		71	4
	All other diseases	537	8	10		17		3				26	1	593	9
	Total	8,985	53	231	2	475	1	135	1			554	7	10280	64

No. 3.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

THIRD QUARTER.

CLASSES OF DISEASES.	Years	1839 to 1854		1855.		1856.		1857.		1858		1859		Total.	
	Mean strength	10,326.		333.		614.		327.		77.		375.		12,053.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	9	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	10	5
	Febris continua communis	48	1	.....	.....	1	.....	9	.....	.....	.....	3	.....	61	1
	Febris inter. quotidiana	3,662	3	64	.....	118	.....	19	.....	20	.....	58	.....	3,962	3
	Febris intermittens tertiana	1,166	.....	47	.....	43	.....	56	.....	8	.....	34	.....	1,374	.....
	Febris intermittens quartana	40	.....	.....	.....	.....	.....	.....	.....	3	.....	.....	.....	43	.....
	Febris remittens	845	10	35	.....	20	.....	.....	.....	.....	.....	5	.....	875	10
	Febris typhus et typhoides	10	5	.....	1	1	1	14	.....	.....	.....	1	.....	26	7
	Febris typhus icterodes	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
Eruptive fevers	Erysipelas	9	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....
	Rubeola	24	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24	4
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	182	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	182	18
	Diarrhœa	959	6	27	.....	32	.....	19	.....	5	.....	29	.....	1,040	6
	Dysenteria acuta	13	9	1	1	21	.....	5	.....	4	.....	5	.....	487	10
	Dysenteria chronica	11	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	14	1
	Enteritis	18	3	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	20	3
	Hepatitis acuta	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	283	.....	7	.....	9	.....	3	.....	1	.....	10	.....	313	.....
	All other diseases	342	7	5	.....	17	.....	6	.....	3	.....	10	.....	383	7
Diseases of the respiratory system.	Bronchitis, acuta et chronica	23	1	.....	.....	3	.....	.....	.....	1	.....	.....	.....	27	1
	Catarrhus	303	1	2	.....	6	.....	10	.....	1	.....	14	.....	336	1
	Phthisis pulmonalis	2	3	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	3
	Pleuritis	51	.....	1	.....	.....	.....	2	.....	.....	.....	1	.....	55	.....
	Pneumonia	17	2	.....	.....	1	.....	.....	.....	.....	.....	1	.....	19	2
	All other diseases	14	3	.....	.....	1	.....	2	.....	.....	.....	.....	.....	17	3
Diseases of the brain and nervous system.	Cephalalgia	81	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	84	.....
	Delirium tremens	42	3	3	.....	.....	.....	3	.....	.....	.....	.....	.....	48	3
	Epilepsia	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	.....
	Neuralgia	26	.....	.....	.....	7	.....	4	.....	.....	.....	.....	.....	37	.....
	All other diseases	36	6	.....	.....	4	.....	1	.....	.....	.....	.....	.....	41	6
Diseases of the urinary and genital organs.	Gonorrhœa	149	.....	3	.....	11	.....	5	.....	.....	.....	3	.....	171	.....
	Stuctura urethræ	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....
	Syphilis primitiva	55	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	56	.....
	Syphilis consecutiva	23	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	26	.....
	All other diseases	52	.....	1	.....	2	.....	2	.....	.....	.....	.....	.....	57	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	7	2	1	.....	.....	.....	.....	.....	.....	.....	1	.....	9	2
Diseases of the fibrous and muscular structures.	Pernio	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	258	.....	2	.....	12	.....	5	.....	1	.....	13	.....	291	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phlegmon et abscessus	583	1	26	.....	63	.....	21	.....	6	.....	21	.....	726	1
	Ulcus	229	.....	1	.....	6	.....	1	.....	1	.....	2	.....	240	.....
	Ambustio	22	.....	.....	.....	.....	.....	3	.....	.....	.....	2	.....	27	.....
Wounds and injuries	Amputatio	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	Contusio	382	1	11	.....	20	.....	10	.....	2	.....	11	.....	436	1
	Fractura	8	.....	3	.....	2	.....	2	.....	.....	.....	2	.....	17	.....
	Luxatio	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
	Punctio	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Sub luxatio	89	.....	1	.....	11	.....	3	.....	1	.....	.....	.....	105	.....
	Vulnus morsum	219	2	7	.....	4	.....	5	.....	.....	.....	1	.....	236	2
	Vulnus laceratum	20	.....	1	.....	8	.....	6	.....	1	.....	2	.....	38	.....
	Vulnus punctum	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	28	.....
	Vulnus sclopeticum	11	3	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	16	3
Miscellaneous	Debilitas	91	.....	.....	.....	4	.....	4	.....	.....	.....	1	.....	100	.....
	Ebrietas	166	3	.....	.....	2	.....	4	.....	.....	.....	.....	.....	172	3
	Hæmorrhois	36	.....	2	.....	.....	.....	3	.....	.....	.....	.....	.....	41	.....
	Hernia	19	.....	.....	.....	5	.....	2	.....	.....	.....	.....	.....	26	.....
	Morbi cutis	52	.....	3	.....	2	.....	.....	.....	1	.....	5	.....	63	.....
	Morbi oculi	178	.....	2	.....	11	.....	2	.....	.....	.....	3	.....	196	.....
	Scorbutus	11	.....	1	.....	1	.....	.....	.....	.....	.....	3	.....	16	.....
	All other diseases	791	9	2	.....	13	.....	9	.....	4	.....	21	.....	843	5
	Total	12290	107	268	2	471	2	266	.....	64	.....	267	.....	13536	111

AMONG THE TROOPS AT POSTS IN THE SOUTH INTERIOR REGION—WEST.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1839 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	8,540.		660.		609.		313.		694.		260.		11,067.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	.....	3	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	3
	Febris continua communis	12	.....	2	2	3	.....	2	.....	2	.....	.....	.....	21	2
	Febris inter. quotidiana	2,146	1	185	.....	77	.....	72	.....	38	.....	36	.....	2,554	1
	Febris intermittens tertiana	1,016	.....	84	.....	23	.....	14	.....	22	.....	10	.....	1,169	.....
	Febris intermittens quartana	71	.....	3	.....	.....	.....	.....	.....	4	.....	1	.....	79	.....
	Febris remittens	250	4	30	.....	7	.....	.....	.....	4	.....	1	.....	292	4
	Febris typhus et typhoides	1	.....	1	1	.....	.....	2	.....	.....	.....	.....	.....	4	1
	Febris typhus ictericodes	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Eruptive fevers	Erysipelas	25	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	26	.....
	Rubeola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	2
	Diarrhœa	562	1	103	.....	19	.....	8	.....	46	.....	8	.....	686	1
	Dysenteria acuta	154	5	35	2	13	.....	8	.....	11	1	9	.....	230	8
	Dysenteria chronica	33	6	6	1	.....	.....	1	.....	1	.....	1	.....	42	7
	Enteritis	7	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	2
	Hepatitis acuta	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	2	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
	Obstipatio	130	.....	4	.....	4	.....	3	.....	11	.....	8	.....	160	.....
	All other diseases	189	1	11	.....	5	.....	2	.....	11	.....	3	1	221	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	54	.....	8	.....	.....	.....	1	.....	1	.....	2	.....	66	.....
	Catarrhus	456	1	43	.....	22	.....	26	.....	41	.....	8	.....	596	1
	Phthisis pulmonalis	2	4	1	1	.....	.....	.....	.....	2	.....	4	1	9	6
	Pleuritis	33	.....	7	.....	5	.....	1	.....	2	.....	2	.....	50	.....
	Pneumonia	17	3	1	.....	2	.....	1	1	.....	.....	1	1	22	5
	All other diseases	10	.....	.....	.....	4	.....	.....	.....	1	.....	2	.....	17	.....
Diseases of the brain and nervous system.	Cephalalgia	45	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	48	.....
	Delirium tremens	31	1	4	.....	1	.....	2	.....	1	.....	2	.....	41	1
	Epilepsia	21	1	1	.....	.....	.....	1	.....	1	.....	.....	.....	24	1
	Neuralgia	24	.....	7	.....	5	.....	6	.....	1	.....	1	.....	44	.....
	All other diseases	15	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	2
Diseases of the urinary and genital organs.	Gonorrhœa	91	.....	2	.....	9	.....	3	.....	4	.....	.....	.....	109	.....
	Strictura urethræ	2	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....	5	.....
	Syphilis primitiva	45	1	2	.....	7	.....	1	.....	1	.....	.....	.....	56	1
	Syphilis consecutiva	23	.....	2	.....	1	.....	1	.....	1	.....	2	.....	30	.....
	All other diseases	35	.....	2	.....	4	.....	.....	.....	5	.....	2	.....	48	.....
Diseases of the serous and exhalent vessels.	Ascites	4	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	5	1
	All other diseases	5	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	7	.....
Diseases of the fibrous and muscular structures.	Pemio	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Podagra	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	4	.....
	Rheumatismus	265	.....	7	.....	11	.....	6	.....	46	.....	6	.....	342	.....
Abscesses and ulcers	Fistula	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	279	.....	32	.....	29	.....	9	.....	44	.....	8	.....	401	.....
	Ulcus	116	.....	13	.....	6	.....	2	.....	12	.....	3	.....	152	.....
Wounds and injuries	Ambustio	30	.....	1	.....	3	.....	1	.....	5	.....	1	.....	41	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
	Contusio	362	.....	31	.....	18	.....	14	.....	17	.....	10	.....	452	.....
	Fractura	18	1	1	.....	.....	.....	.....	.....	1	.....	2	.....	22	1
	Luxatio	10	.....	3	.....	.....	.....	.....	.....	3	.....	2	.....	18	.....
	Punctio	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Sub luxatio	81	.....	8	.....	10	.....	1	.....	3	.....	5	.....	108	.....
	Vulnus morsum	173	.....	4	.....	8	.....	8	.....	15	.....	3	.....	211	.....
	Vulnus laceratum	25	.....	8	.....	3	.....	6	.....	23	.....	6	.....	71	.....
	Vulnus punctum	24	.....	1	.....	1	.....	3	.....	10	1	3	.....	42	1
	Vulnus sclopeticum	17	2	1	.....	1	.....	1	.....	7	.....	.....	.....	27	2
Miscellaneous	Debilitas	46	.....	1	.....	1	.....	1	.....	2	.....	.....	.....	51	.....
	Ebrietas	74	.....	11	.....	7	.....	5	.....	.....	.....	.....	.....	97	.....
	Hæmorrhois	44	.....	4	.....	4	.....	2	.....	7	.....	3	.....	64	.....
	Hernia	21	.....	1	.....	.....	.....	.....	.....	2	.....	.....	.....	24	.....
	Morbi cutis	15	.....	1	.....	1	.....	1	.....	1	.....	.....	.....	19	.....
	Morbi oculi	103	.....	2	.....	5	.....	1	.....	12	.....	4	.....	127	.....
	Scorbutus	6	.....	3	.....	2	.....	.....	.....	9	.....	3	.....	23	.....
	All other diseases	387	1	7	.....	8	.....	5	.....	45	.....	12	.....	464	1
	Total	7,566	42	694	8	331	.....	221	1	480	2	177	3	9,469	58

FLORIDA.

THE ATLANTIC COAST OF FLORIDA.

This region extends from the twenty-fourth to the thirtieth parallel of latitude, and includes the following military stations: Fort Marion, camp near New Smyrna, Forts Pierce, Capron, Jupiter, Dallas, and Key West Barracks.

The medical topography of Fort Marion, of camp near New Smyrna, and of Forts Pierce, Dallas, and Key West Barracks, will be found described in the report of 1856.

The sanitary reports that follow are the only ones of interest that have been received from this region since January, 1855.

SANITARY REPORTS—FORT CAPRON.

Assistant Surgeon P. A. Quinan: December, 1855.

Fort Capron has generally been regarded as quite equal in point of salubrity to any station in the peninsula. It consists of a quadrangular building, capable of accommodating about forty men, used as soldiers' barracks; of officers' quarters, a hospital, and several small outbuildings. The hospital ward holds six bunks, and there is a surgery and storeroom attached. The building is in good repair, its chief defect being its limited capacity. The buildings are located in the immediate vicinity of the river bank, which is somewhat bold, sandy, and free from vegetation. Indian river is somewhat inappropriately named, having more the nature of a sound, with communication with the sea. Its waters are strongly saline, possessing about two thirds the specific gravity of the ocean. Running parallel to the coast, the only barrier between it and the sea, distant a mile and a half from the fort, is formed by a narrow strip of land covered with mangrove and cactus. These afford but little obstruction to the sea-breeze, which reaches this locality almost constantly. It is of course an important element in maintaining the health of the place. The prevailing winds are from the N. and N.W. in winter, and from the S. and S.E. in summer. There are no other water-courses, with exception of two or three small creeks at some distance. It is presumed that this locality was selected in consequence of its proximity to the inlet opposite, and the facility in landing stores from sea, as it possesses no other advantages over the site of old Fort Pierce, three miles below. At the latter place are visible the supposed remains of some stronghold of the daring buccaneers. The neighboring country presents a tolerably thick growth of pine, with occasional clumps of live-oak and small cyprus. The intervening savannas are not unfrequently covered with water. In the immediate rear of the post is a high sand ridge. This may operate as a barrier in warding off miasmata, borne hither from inland swamps. The soil possesses but a small allowance of organic constituents and a large proportion of silica, yet vegetables do well when cared for. Tropical fruits have been grown with some success: the orange, lime, banana, and pine-apple chiefly. Other plants here found are the maguey, (*Agave americana*,) Spanish bayonet, wild figs, a

species of fruit found in the vicinity of the beach, termed "cocoa plums," quite edible, and the oleander, which grows to a great size. The woods abound in game: deer, wild turkeys, partridges, &c. The post is supplied with excellent water from a well. Although the cases of fever reported exceed the mean strength of the garrison, all were relapses from former attacks at Fort Jupiter, from whence this command marched in October, 1855.

FORT CAPRON, FLORIDA,
June 30, 1856.

The fever prevailing during this quarter has been of a simple nature, unmarked, in most instances, by visceral or other severe complications. Relapses, though more frequent, have been independent of periodicity in their occurrence. In most cases they occur in defiance of all effort to prevent them, and lead to the conclusion that a strong exciting cause is to be looked for in this locality at present. In a former report the salubrity of the post was commented on, the belief being founded upon the medical records here kept. Experience in this section of the peninsula tends to show, however, that no locality can boast certain or permanent exemption from malarious disease. Sudden changes in the salubrity of a place hitherto deemed healthy often occur, the causes for which not unfrequently defy the closest scrutiny. The most plausible explanation of these alterations is to be founded on a comparative study of the topography and climatology of the country. There can be but little doubt that the natural features of this country render it peculiarly subject to the operation of atmospheric and climatological influences. Presenting, for instance, an almost unobstructed level, prevailing air currents seek out readily every portion and pass at all times freely over the surface. The wind now blowing from an inland direction, carries upon its wings miasmatic gases from swamps, or accumulated caloric from heated plains; and again shifting to another and opposite quarter, reaching the coast ocean-ward, it may prove an element of health. Another noticeable fact is found in the peculiarity of the rainy season. The prevalence of constant showers, small in quantity, but saturating the porous, yet retentive soil with moisture. Add to this the abundant vegetable debris which accumulate on all sides, and there are present, under the influence of a powerful sun, the materials for the most pernicious effects. The degree and range of temperature, and local peculiarities, as barrier sand ridges, contiguous savannas, fresh or salt water-courses, or an admixture of both, &c., must enter into our calculations of the hygienic status of a place. In relation to one of these causes, viz., that fresh and salt water combined increase the virulence of miasmata, there are several examples. In the Histoire Medicale, Paris, 1828, the instance of a marshy district near the Ligurian Apennines is adduced. This plain is accessible to the high oceanic tides; at the times of such overflows the neighboring district is uninhabitable from the prevalence of intermittent fever; but when, however, the salt water again subsides, those of the plain becoming entirely fresh, the people return in safety. If these views be correct, and they are but a repetition of theories already received, it will not be difficult to apply them locally. In regard to this place, the following observations may justly be made: First, this is a season of excessive temperature, the *mean* exceeds, by several degrees, those of preceding years. Westerly or inland breezes prevail during certain hours of the morning. Rain falls in moderate quantities *constantly*, favoring the growth of an unusually rank vegetation, continually undergoing reproduction and decay. Certain other matters (required by regulation) must be mentioned. First, as to diet; this is confined to a few articles, scarce affording that variety which is essential, or indeed the due percentage of nutritive material. Fish constitutes the only article, in addition to those composing the ration, regularly consumed here. Fresh vegetables are not to be had, as no garden has been made, though practicable to have one. Barrack accommodation is tolerably good. The hospital ward holds conveniently four sick men, and is of course inadequate when there are many sick. No kitchen, shed, or other facility for cooking is allowed the hospital, though lumber can easily be procured from Fort Jupiter for its construction. But *one* attendant

is allowed the hospital, though application has been made for the other allowed by regulation. This embarrasses the hospital police at times considerably. The habits of the men are passably good. The water and clothing without fault.

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FORT CAPRON, FLORIDA.
September, 1856.

A sensible diminution, compared with the previous report, is manifest in the number of cases classified as fevers. These still comprise, however, more than one half the entire number of cases reported. In view of the fact that the greater portion of them were originally contracted a year since, in a somewhat remote locality, it is believed that the disease seldom exhibits more obstinacy in maintaining itself in the system, long after its more violent symptoms have been abated. This opinion is uninfluenced by the ascertained presence of exciting causes in this place, as none of the original cases referred to underwent increased frequency of return, or of violence of grade, in consequence. As ague and fever seldom affords cause for alarm, or even seriously excites the anxieties of the patient, but is nevertheless one of the most vexatious ills which can afflict a garrison, it is satisfactory to report a gradual but very apparent improvement in the grade, and results, as well as a diminution of the number of cases which have presented themselves since the early part of July. Relapses have been experienced in but four instances, in each of which there was but a single return. The majority of the more obstinate cases, are believed to have been permanently relieved. I am inclined to look in a considerable degree to the climate in explanation of this improvement. We have experienced a modification of the usual summer temperature during the last two months. This has been felt beneficially; much less rain has fallen than during the early portion of the summer, and it is a matter of observation that the intensely hot and humid weather which usually prevails between our frequent rain falls, is accompanied by an aggravation of prevalent diseases. Nothing, however, it is thought influences the hygiene of this place, in so great a degree, as the direction and consequent character, of the prevailing winds. Prevailing from the eastward, the atmospheric temperature, modified by refreshing drafts of cooler air, is seldom excessive; but a change to the opposite quarter seems to effect an increase of the accumulated heat, and the wind from thence to merit the name of a native sirocco. In the former case, the prevailing air currents confer all the advantages of the sea-breeze; while in the latter, coming from an inland direction, they bring with them sufficient of the deleterious influences from the flats and marshes of a level country, to induce languor and debility, if not actual disease. The diet, water, and habits of the men remain unaltered since the last report. The sanitary condition of the command, as well as that of individuals, has been looked to as far as circumstances would admit, or my authority is recognized. In this way avoidance of useless exposure to the sun, very common here, as well as the more obvious and well-known necessities of suitable exercise, cleanliness, and aeration, have been enjoined. The treatment, so far as the intermittent patients were concerned, has undergone no modification. Quinine, in small but efficient doses of two, three, five, or ten grains, is chiefly relied on.

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SANITARY REPORT—FORT DALLAS.

Assistant Surgeon R. F. Simpson: April, 1857.

This post, the headquarters of the first regiment United States Artillery, is garrisoned by companies B, E, and the regimental band of that regiment. It is situated on the left or north bank of the Miami river, immediately at its junction with Key Biscayne bay, in latitude 25° 0′ 55″ N., and longitude 80° 0′ 20″ W. The elevation of the post is about fifteen feet above the bay at low tide. There are no ponds of stagnant water nearer than the Everglades, four or five miles

northwest of the post. The soil is loose sand, and in places is mixed with an alluvial deposit. The formation is rotten, porous limestone, which, in many places, appears above the surface. Many banks of large and small shells are found. Water, slightly impregnated with lime, is found in abundance, by digging from fifteen to twenty feet below the surface, through the limestone rock. Arch creek, one of the tributaries of the bay, is bridged by a natural arch of limestone, fifty feet wide and three feet above the surface of the creek at low water. The bridge is about ten miles north of the post. The Miami river heads in the vast Everglades, four or five miles west of the post; at its mouth, it is about three hundred feet wide, with an average depth of six feet; at high tide, the water of the river is quite brackish one mile above its mouth.

Key Biscayne bay, from Cape Florida to its head, is about twenty-five miles long, with an average width of two and a half miles; shoals are numerous, but in the channel there are from five to eight feet of water. Fish, in great abundance and of many varieties, are found in the bay and river. There are also oysters, but they are small and badly flavored.

There are small patches of ground about the post, on which garden vegetables of almost every variety can be cultivated, and they flourish remarkably well; oranges, limes, lemons, cocoanuts, guavas, pomegranates, dates, bananas, alligator pears, sugar apples, and other tropical fruits, could be also successfully cultivated. The arrow-root grows in great abundance; and, if the Indians were removed, or could be induced to regard the white man as their friend, so that settlers would not be molested in their occupations, its conversion into flour and starch would no doubt yield to the operators an annual income of several hundred thousand dollars. Hemp would also grow well, and its cultivation might be made profitable.

The climate in winter is serene and equable, with but little humidity in the atmosphere; and, if permanent settlements could be established with sufficient accommodations for invalids, no doubt those suffering with pulmonary diseases would be much benefited by spending the winter months in this part of Florida. The daily mean of the observations of the thermometer is, for the last six months, 72.10°; of the hygrometer, 68.37°; quantity of rain for the same period, 17.30 inches; the prevailing winds from the east. There was frost and ice on December 25 and 26, 1856, and January 20, 1857, with thermometer at 30° at sunrise.

The accompanying report of sick and wounded for the quarter ending on the 31st ultimo, shows that the command has been remarkably free from any severe or serious disease, notwithstanding the officers and men have been exposed the greater part of the time on repeated scouts without any protection from the weather; nearly all the cases of scurvy reported were brought to the post by some companies of the Fourth Artillery, which arrived about the 1st of March from a long scout; they yielded readily to Irish potatoes and lime-juice; the former, my limited experience teaches me to regard as the very best anti-scorbutic known. It will be seen that remittent and intermittent fevers are not common diseases of the post as they are of many other parts of Florida; the cases reported were not contracted at the post. Judging from the past three months, I regard this as the most healthy post now occupied by troops in Florida. I have been on duty at most of them, but none compare with this in salubrity.

DISEASES.

The statistics included in the tables for this region cover a period of eleven years, from January, 1849, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	1,942	1,358	1	700	0.5
Second quarter	1,832	1,579	9	861	5
Third quarter	1,848	2,006	28	1,085	15
Fourth quarter	1,737	1,508	7	868	4
Annual ratio	1,835	6,451	45	3,515	24

The relative proportion of cases of sickness in this region to the number of troops is 3.51 to 1; and the corresponding ratio of deaths, 1 in 40.78, or 2.4 per cent. The proportion of deaths to the number of cases treated was 1 in 143.35, or 0.70 per cent.

FEVERS.

Quarters	First.		Second.		Third.		Fourth.		Year.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	1,942		1,832		1,848		1,737		1,835			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris congestiva	0	0	0	0	1	1	0	0	1	1	1 in 1	0.5
Febris continua communis	18	0	2	0	7	2	7	0	34	2	1 in 17	18.5
Febris intermittens quotidiana	106	0	111	0	391	0	236	0	844	0	0 in 844	460
Febris intermittens tertiana	78	0	110	0	143	0	113	0	444	0	0 in 444	242
Febris intermittens quartana	6	0	6	0	2	0	1	0	15	0	0 in 15	8
Febris remittens	16	0	59	0	117	1	42	0	234	1	1 in 234	127
Febris typhus et typhoides	0	0	0	0	2	1	2	1	4	2	1 in 2	2
Febris typhus remittens	0	0	9	2	25	10	15	3	49	15	1 in 3.3	26
Total	224	0	297	2	688	15	416	4	1,625	21	1 in 77	885

In relation to the fevers of this region, the following reports are submitted:

SANITARY REPORT—FORT CAPRON.

Assistant Surgeon Asa Wall: September, 1857.

It might be supposed, by a reference to the sick report, that this post has been very unhealthy during the past quarter. This, however, has not been really the case, inasmuch as the large number of cases of a febrile character observable on the report originated elsewhere, owing to a change in the garrison.

This post has been occupied alternately during the quarter by company H, First Artillery, and company D, Fourth Artillery. The latter having come here from Fort Jupiter about the middle of August, the former then proceeded to garrison Jupiter in its stead. Company D left this post several weeks since, under orders for Kansas, and company H returned from Jupiter and reoccupied it. It will thus be seen that both of these companies have occupied Jupiter at

different times, and it was at this latter place that the large number of cases of a febrile nature treated at Fort Capron originated.

Fort Jupiter is situated about forty-five miles south of this place, nearer the junction of the Lochahatchee river and Jones's creek, and about three miles from the ocean beach. It is surrounded by swamps and lagoons, filled with a rank growth of grass, rushes, and other vegetation peculiar to the climate, and it is doubtless owing to the decomposition and decay of this profuse vegetation that the unhealthiness of the place is to be attributed.

I am told, that in the old Florida war Jupiter was considered quite a healthy place, invalids having been sent there from the interior posts for the purpose of medical treatment, and of receiving the benefit of the sea-breeze. But at that time Jupiter inlet was open, and the salt water of the sea had free access to the surrounding low country, so that what is now a mere stagnant pool (there being no current except that produced by the prevailing winds) was at that time a salt water bay or sound, through which the tide ebbed and flowed freely.

To show the intensity of the miasmatic poison which prevailed during the time that the post was occupied by company H, it may be stated that out of *two* officers and *sixty-two* enlisted men, (who composed the garrison,) both officers and forty-five enlisted men were seized with the fever. Company D having been less exposed during the sickly season than the former command, suffered to a more limited extent.

The fever was of the intermittent and remittent kind, with occasional tendency to active congestion of important organs. The treatment followed in these latter cases was that pursued by many army surgeons in the old Florida war, viz: "quinine in large doses," with such adjuvants as the peculiarities of certain cases required, and I am happy to say that this plan of treatment has been successful in the highest degree. I have lost but one patient from the fever, and he died when my supply of the sulphate of quinine was exhausted. During the time that I was without the sulphate of quinine, I employed such remedies as are usually considered substitutes for this medicine, such as Fowler's solution, piperine, salt and lemon-juice, &c., but without satisfactory results.

As regards the question formerly mooted as to the liability of the sulphate of quinine when given in large doses to produce engorgement of the liver and spleen, I have to say that, as far as my private observation extends, I have witnessed no such tendency, though it may be proper to state that I frequently combined calomel with the quinine, which doubtless had a tendency to prevent such engorgements. The only two cases of engorgement of the spleen that have come under my observation since I have been in Florida were presented by volunteers—natives of the country—who told me that they had been in the habit of taking the infusion of willow bark for the disease with which they had been troubled, viz: intermittent fever.

FORT JUPITER.

Fort Jupiter is situated on the south side of Jupiter river, about three miles from Jupiter bar. The river is formed by four fresh-water streams, having their origin in the marshes of the interior, and affording unobstructed avenues for the passage and concentration of their emanations to this point. In the old Florida war, Fort Jupiter was considered a healthy place, and invalids were sent there from posts in the interior. At that time, however, Jupiter inlet was open and the sea-water had free access to the surrounding country. In 1840, that inlet became closed; it was reopened in 1843. In the summer of 1854, it again closed, and subsequently Gilbert's bar, about twenty miles above Jupiter, also closed. The consequence has been to freshen all the water south of Gilbert's inlet, causing the death of all the oysters about Jupiter, and of those fish whose habits confine them exclusively to salt water. Such was the condition of Fort Jupiter in March, 1855, as reported by Assistant Surgeon A. J. Foard. In September of that year, Assistant Surgeon P. A. Quinan reports: "The neighboring communication of the river with the ocean is

obstructed, thus converting it into a fresh-water lagoon, without tide or much current. The surrounding waters are filled with a rank vegetation of marsh grass, emitting offensive effluvia. A considerable portion of low boggy ground in the immediate neighborhood of the post, and numerous hollows, serve to retain the moisture of the heavy rains to be acted upon by the sun. The emanations from these places doubtless descend with the heavy evening dews. The prevailing winds are from the east, but a change to the opposite point of the compass not unfrequently occurs during the night, blowing fresh from the inland marshes. Pure water for drinking is unattainable. Intermittent and remittent fevers are rife. In the months of July, August, and September, in a command averaging four officers and seventy-two enlisted men, there were one hundred and forty-three cases of intermittent fever and seventeen of remittent fever."

SANITARY REPORT—KEY WEST BARRACKS.

Assistant Surgeon Richard D. Lynde: September, 1858.

This garrison has been comparatively healthy during this the third quarter of the current year; and although there has been quite a number of cases of yellow fever in the harbor, and some in the town, not a case has occurred in the barracks. As soon as the fever made its appearance in the harbor so as to excite attention, which was in July, the commanding officer prohibited the men from going into the town, stopped all work except that necessary for the proper police of the garrison, and prohibited the men from sleeping on the porches at night, which they had been in the habit of doing previously. In addition to these measures a sutler's store was opened, which gave the men an opportunity of obtaining a reasonable amount of accustomed stimulants, and removed one great incentive to visit the town with the majority. Some few inveterate drunkards, however, would slip off when an opportunity offered, but even in such cases these restrictions, and the example of the majority, had a good effect. As a whole, the command has behaved remarkably well, bearing the confinement to the limits of the garrison with great cheerfulness. The men have also been encouraged to bathe freely in sea-water, which has, no doubt, contributed much to the preservation of their health. It may be noticed, by reference to the meteorological register, that easterly winds have prevailed during the quarter, and that the westerly winds, that come from the town and harbor, were very rare, and of very short duration. To this circumstance, I have no doubt, our immunity is partially due. Whether we should have been so free from the disease had it prevailed to any extent among the citizens of the town, as in 1854, is a matter of great doubt, notwithstanding the general good behavior of the command, when we take into consideration the fact that the great majority of the men are totally unacclimated, and that a large number only joined, from the North, in January last; yet, even under these circumstances, I believe that precautionary measures, such as were adopted here this summer, and a judicious control of the men, exerted by a firm and prudent hand, may do much towards warding off the disease.

The case of yellow fever reported was not properly of this command. He was the ordnance sergeant stationed at (and in charge of) Fort Taylor.

In connection with this case, I would call the attention of the head of this department to the fact that within a few hundred yards of Fort Taylor there exists a large but very shallow pond, which is drained by a ditch into the harbor, and through which ditch the tides flow and ebb, leaving nearly one half its bed exposed to the action of the sun during each low tide; and at no time is the water deep enough to prevent it from being heated to a high degree by the sun. Into this pond much vegetable matter is carried by the rains from the higher grounds around, and from other lesser ponds in the neighborhood which drain into it; and sometimes the stench arising from it is intolerable. This would be a source of much unhealthiness to the troops that might be at any future day stationed at the fort, and should be filled up with the clean sand of the sea-beach close at hand. I am inclined to think that the effluvium arisin from this pond

was an important element in the origin of the case of fever just described. The position of the marine hospital is also altogether too near to the fort, should the exigencies of the service require that troops should be stationed there during the summer season. The distance between the two points is very slight, and the prevailing winds in summer blow directly from the hospital towards the fort; and if there be an emanation generated by yellow fever cases capable of reproducing the disease, and of being transmitted through the atmosphere, it would surely infect troops at that point; besides this, all communication with the town must be made by passing directly by the hospital, and within a few yards of it. It is unnecessary to say more in order to show how essential to the sanitary condition of these important fortifications is the removal of this hospital.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	1,942		1,832		1,848		1,737		1,835				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	0	0	1	1	0	0	1	1	1 in	1	.....
Diarrhœa	270	0	330	0	296	0	273	0	1,169	0	0 in	1,169	637
Dysenteria acuta	61	0	75	1	119	2	58	0	313	3	1 in	104	171
Dysenteria chronica	4	1	16	2	2	0	8	0	30	3	1 in	10	16
Enteritis	9	0	3	1	4	0	5	0	21	1	1 in	21	11
Hepatitis acuta	1	0	0	0	1	0	0	0	2	0	0 in	2	1.1
Hepatitis chronica	0	0	0	0	2	0	0	0	2	0	0 in	2	1.1
Obstipatio	81	0	82	0	87	0	69	0	319	0	0 in	319	174
All other diseases of this class	49	0	71	0	54	2	67	1	241	3	1 in	80	131
Total	475	1	577	4	566	5	480	1	2,098	11	1 in	190	1,143

Assistant Surgeon E. W. Johns, in a sanitary report dated Fort Dallas, Florida, June 30, 1856, makes the following remarks in relation to the treatment of dysentery:

"I may remark in comparison that, as far as my observation has gone, somewhat different indications for the treatment of dysentery are presented in the disease as seen at this post, from what experience has taught in the management of the same disease, as it was observed in the department of Texas; and the difference is with reference to the exhibition and value of mercury. In Texas, particularly the southern portion, irritability of the system appeared to be the chief characteristic impressed upon the disease by the effect of a climate which is much drier and hotter than that of this locality; and the direct sedative effect of opium, freely used to quiet that state of the system, which kept up the disease, combined with acetate of lead and other astringents, to assist (together with astringent injections) in arresting the albuminous discharges, with small doses of ipecacuanha to promote diaphoresis, was found the treatment best adapted to and most successful in dysentery; and mercury was but rarely employed, as it seemed to act as an irritant. In the much more moist climate of this post, of which the degree of moisture is even more appreciated by individual sensations than evidenced by the hygrometer, dysentery has been attended with greater derangement of the hepatic functions, and the indications have been for the use of mercury to relieve the portal circulation, and sometimes to employ it to the extent of producing moderate ptyalism."

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	1,942		1,832		1,848		1,737		1,835				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	15	0	16	0	4	0	3	0	38	0	0 in	38	20.7
Catarrhus	47	0	24	0	44	0	94	0	209	0	0 in	209	114
Phthisis pulmonalis	1	0	0	0	2	2	2	0	5	2	1 in	2.5	2.7
Pleuritis	9	0	3	0	3	0	2	0	17	0	0 in	17	9.2
Pneumonia	0	0	1	0	1	1	0	0	2	1	1 in	2	1.09
All other diseases of this class	4	0	8	0	0	0	6	0	18	0	0 in	18	9.8
Total	76	0	52	0	54	3	107	0	289	3	1 in	96	157
Rheumatismus	89	0	57	0	43	0	40	0	229	0	0 in	229	124

INTERIOR, AND GULF COAST OF FLORIDA.

During the last five years the troops stationed on the Atlantic coast of Florida, have been nearly if not quite as actively employed in the field, as those stationed on the Gulf coast. With this exception, the following extract from the report of 1856, is applicable to the whole period embraced in the abstract and other statistical tables for this region:

"The troops stationed in West Florida, and on the immediate shores of the Gulf of Mexico, have been much more actively employed in the field than those in East Florida and on the Atlantic coast. In addition to this difference of service, which would of course tend to increase the amount of sickness among the troops in this region, the exigencies of the service and the special duty to be performed, rendered the occupation of sickly positions unavoidable. These facts should be considered in any deductions to be drawn from the statistics for this group of posts.

"The quarterly reports embraced in the general abstract, though rendered for separate posts or forts, necessarily include the cases of sickness actually incurred in the field, as most of the field duty was performed by scouting parties temporarily absent from their permanent stations."

The positions that have been most permanently occupied are Barrancas Barracks, Forts Brooke, Meade, Myers, and Deynaud. Forts McRee, Cross, Center, and Kissimmee have also been garrisoned for various periods during the last five years.

The medical topography and diseases of Barrancas Barracks, and of Forts Meade, Brooke, and Myers have been described in the report of 1856.

SANITARY REPORT—CAMP NEAR FORT KISSIMMEE.

Assistant Surgeon Thomas A. McParlin: June, 1857.

I transmit herewith tabular statements of the sick and wounded of the commands on duty at, or on service from, this post, for the last six months, ending June 30, 1857. I have been at pains to collect these from memoranda taken mostly in the field, having been absent for more than half of this period, and from such records as were made at the post.

Upon the site of old Fort Kissimmee, an encampment was located by the Fourth Artillery battalion with which I was on duty, on the 6th of January. It is the highest point near, some

ten or twelve feet above the level of the river, and immediately upon its banks. The whole surrounding country is very low, two miles of it in extent to the eastward of continuous swamp which the river annually overflows, making this spot so unhealthy that the Indians were formerly accustomed to abandon it. To the west, a level prairie extends for two and a half miles, to the pine barren, that is thence almost continuous to Tampa. To this barren, on the 1st of June, the troops were moved, in advance of the sickly season. The prairie or meadow strip is in mid-summer submerged, moist at most seasons, and, with its fine grass, a very desirable grazing ground which the Indians and herders have alternately enjoyed, the latter at great risk. The line of the river, in its course, is indicated by green hammocks, standing apart and agreeably varying the landscape. They contain the live (moss) oak, bay, and hickory, overshadowing a rich growth of laurel, the small palmetto, myrtle and grape, making a dense tanglewood. Further from the river, and skirting the line of marsh, the tall palmetto appears, solitary or in groups, recalling by their graceful crown of leaves the finer species of the East. This is the only prairie scene of any extent or beauty from Tampa to the Kissimmee, a distance of 102 miles. Along the lower portion of the river, cypress appears; this and all other trees near its banks are covered with pendant moss, the pine also bearing it wherever they approach the river. The bay, with evergreen leaf and bark is not thus affected. Many ferns are noticeable in these damp shades.

The river is now turbid, the color of chocolate, from the matters it has carried from the lakes and swamps along its course. Showers, in this the rainy season, are daily adding thereto. There are no posts on this river except this and a small force of volunteers at Bassinger. This soil is sand, upon soft limestone, and with an alluvial deposit.

In February last, the troops, fresh from the north, after a long march from Tampa, and less than a month's stay and labor upon the encampment were put (60 men of each company) in the field.

With very restricted transportation, a new route was laid out from hence to Fort McRee, on the eastern border of Lake Okeechobee. From difficulties they encountered, many of the men were in tatters, out of shoes, foot sore, and unfit for active service. We found on our arrival the measles among the mounted volunteers. From these companies I was compelled to leave, on taking the field again, sixteen or eighteen men, unfit for the saddle. In this population measles seem to be seldom contracted in early life; for while I succeeded, although treating and mingling among them, in keeping the disease from my own command at Kissimmee and McRee, it went through and nearly destroyed the efficiency of three companies of volunteers.

In the exertion and excitement required over a new route, in our expedition down, few of the men were unwell. The redundant growth of scrub-palmetto, made our way for foot troops very difficult; much of it was over burned or burning country, and a few days rest at McRee was not unwelcome.

Orders were soon received at that place for an expedition of five companies to "New River," of the details of this I have already written in letters to the department. I will here only add that we made our way on foot, without transportation, carrying, on the men themselves, subsistence, arms, clothing, and blankets, for what was ordered as a ten days' scout. Superadded to this, reconnoissances were made in different directions, by parts of the force afield.

The country from Fort McRee southward is, at first, of dense cypress and palmetto swamps, lying at the base of General Taylor's route to the Everglades, nearly impassable in a good season for wagons. From thence the country, through pine barren and cypress land, descends. For four days our way was more *wading* than marching, as it is either ponds of water on the sandy divide, or cypress swamp on each side; the Atlantic and the Everglades continually approaching towards New River and the Miami, where they approximate nearest. Going thus southward the vegetable productions change, the coontee plant or Indian arrow-root appears in great abundance, in a light sandy soil over decaying limestone rock that crops out in places; the palmetto becomes more luxuriant and large, the maple, bay, and vines of many species reappear

along the creeks, with the mangrove; a pleasing change from the monotony of the pine barren. Passing Arch creek, (which has a level natural bridge, by an arch of limestone rock over the stream that runs rapidly twenty-five feet below,) and others of less note, we arrived at Fort Dallas, on the 28th of February. Here we found the vegetable productions of a tropical clime. A long line of cocoanut trees, laden with ripening fruit, marked for some distance the bank of the Miami, a clear, beautiful stream, fringed with a growth of mangrove along its shores. The banana, guava, lime, date, citron, and lemon, are also grown. The last, with the productions of a fine vegetable garden, were grateful after the starvation, partly remedied by hippophagy, at New River, a few days before. A grove of wild oranges on the southwest side of the Miami cured for me several incipient cases of scurvy, and gave me (with the hospital conveniences under Dr. Simpson's charge) much assistance in treatment during my stay. On arrival the men were in worse plight than I have ever seen troops on service; so unfit for the return that it was contemplated to send them by sea-steamer to Fort Myers. Abrasions, bruises, ulcers, scorbutic sores, blotches, and swellings disfigured many. A fine sea-air, rest, change of diet and habits, rallied them in the course of twelve days, and the *tour de retour* was commenced under Colonel Dimmick, with two additional companies of First Artillery—our volunteers had to return from New River before—and with orders to reconnoitre the country to Fort McRee. This was done with wagons in ten days, very effectively. Our men arrived in good order and spirit at its expiration.

Having accompanied this to its termination, I now changed to a new command, and went with the battalion (companies C and L) under Major Williams, Fourth Artillery, in boats to the Kissimmee and the lakes. Upon this we set out on March 31, from Fort Center, and examined the shore north side of Okeechobee, Kissimmee river, Istokpogee creek, lake, and islands, Lake Kissimmee, "Tiger," "Upper" and "Lower Cypress," and the two Tohopocaliga lakes, with their islands, swamps, hammocks, &c. With these we were occupied until the 21st of May. In the navigation of the river, creeks, and on the broad surface of the lakes, the command was much exposed to intense heat, direct and reflected rays of the sun, and the glare so trying in this latitude. From these causes I had cases of hemeralopia, the retina being exhausted by the exposure and trials of the daylight. The rainy season had not set in, the dews light enough to be kept off by the sand-fly bars, an occasional wetting from rain or wading in the swamps passed away without effect. The continued diet of pork, hard bread, and coffee impoverished the blood of the men, many of whom showed decided scorbutic taints before we came down from the Kissimmee and its dependent chain of lakes.

Returning to the fort, (May 21,) and moving out to our encampment on the pine barren, (June 1,) we have since been engrossed with preparations for the rainy season.

As long as the troops were undergoing active exercise, disease has not much visited them. We are now to be inactive in a low, damp situation, with cold winds accompanying showers of rain.

The camp is now about two feet above the level whereat water is found by digging, and this level is rising daily. The water we use is supplied from wells recently dug, the water percolating freely through layers of white and yellow sand.

Without neighbors or diseases of importation, located on the western slope of the "divide" of the peninsula, the alternations of the land and sea breezes serve well for ventilation, and delightfully refresh the air. Other than at the times of calm, between these two currents, (which are in equilibrium about 8 o'clock morning and evening,) the heat is made less sensible by the breeze. This (as the wind charts of Maury and of our own department records show) sweeps in the summer from the eastward, and carries over our slip of land the cool sea airs of the Atlantic; the return breeze at night comes from the Gulf of Mexico and the land.

The constitution of the atmosphere in regard to humidity cannot here vary much from these causes of peculiar position; indeed, this nearness to the sea tempers and equalizes the air much, and renders climatic vicissitudes less frequent. Hence the mildness of Florida to pulmonary

invalids; and for such, I may add, that I have seen no better position than is afforded at Fort Dallas. I report and have seen very little of pulmonary disorder.

Since we have occupied this position, I have been engaged in the treatment of malarious fevers, dysenteries, and diarrhœas, rheumatic disorders, diseases of the eye, scorbutic taints and disease, wounds, and injuries. I was called to see, among the volunteers, an advanced case of phlegmonous erysipelas, affecting the head, face, and throat. This patient was in the saddle after seizure, (which came on near Fort Center,) and the excessive inflammation involved and destroyed one eye. Of the ophthalmic cases, exhaustion of the retina, or conjunctival inflammation, principally occurs. I have had, however, a case of amaurosis, loss of sight in one eye, and increasing dimness in the other, which a cautious and sustained ptyalism has completely removed.

My sick occupy a hospital tent, which I will remove to a raised platform now erecting, two feet from the ground level, as it will probably soon be overflowed. The company will be similarly placed, under paulins. The officers' tents are to be pitched on a platform.

The troops are subsisted on the ordinary ration, with fresh beef frequently; but no vegetables can be procured. Parties and detachments of volunteers pass frequently, to whose sick I give such accommodation, medicines, and attention as may be required.

SANITARY REPORT—FORT McREE.

Assistant Surgeon William H. Babcock: 1857.

Fort McRee is situated on a narrow bar of white sand, which forms the eastern shore of Lake Okeechobee. This bar borders also most all the northern half of the lake, and is generally quite narrow and low. At the site of the fort it averages about seventy feet in width, and at its highest point is from three to four feet above the level of the lake.

Immediately back of the sand bar is a dense swamp, one hundred yards or more in width, and between this and the "pine barren," or main land, which is a mile and a quarter further to the east, lies a deep sow grass marsh, partly covered with water. Cypress and cabbage-palmetto trees, with a thick undergrowth, cover the swamp and bar, except just in the vicinity of the post, where they have been most all cut down formerly for firewood and to build a block-house, of which only a few charred logs were found standing.

Violent storms occur not unfrequently upon the lake; and when the wind blows on shore, the water is driven up a considerable distance on the bar. On this account it was found necessary to pitch the tents within a few feet of the swamp, the sand being highest at this point.

The post was occupied early in January, and abandoned about the middle of June. During this period, the garrison varied in numbers from three companies to the sick only and a small guard. Detachments from two companies of volunteers were posted for some time on the main land immediately across the marsh.

The command which was sent out originally to occupy the post, consisting of companies D and K, Fourth Artillery, proceeded at once to build a wooden footpath across the marsh, in order to connect the bar with the main land, and thus establish a communication with the Atlantic coast. This labor, which the depth and impassability of the marsh, and the distance which the timber had to be carried, rendered arduous, was not finished until the 9th of February; but when this was completed the duties of the men were comparatively light. In March they were employed in building sheds, and, after these were finished, only in the ordinary garrison duties, and as crews for the boats on the lake, by which provisions were received from Fort Center.

The diet of the men was, in the main, poor. The only vegetables received at the post, during the five months it was occupied, were three barrels of potatoes (of which only a barrel and a half were edible) and a few cabbages. Fresh beef was issued but four or five times, owing

to the loss of the cattle, which were herded in the pine woods for the use of the post. The ordinary antiscorbutics were issued very freely, but they did not prevent the occurrence of scurvy.

The water was excessively bad. It was obtained, in turn, from the lake, the swamp, and from holes dug in the sand; that from each source being used for a time exclusively. It was found that the lake water, if boiled, or allowed to stand in barrels before being used, was the best, both as regards taste and its effect upon the health; but this was still poor, and in the months of May and June it was almost putrid in smell and taste.

The ratio of sick during the first quarter, ending March 31, was three hundred and ninety-seven per thousand, and for the second, incomplete quarter, ending June 20, four hundred and seventy-three per thousand, making an average of four hundred and thirty-five per thousand during the whole period.

The majority of all the cases treated (three hundred and three in number) were fevers and diseases of the bowels.

Of fever there occurred eighty-one cases, seventy-eight intermittent, two remittent, and one continued. This number, though large, is not so great as might have been expected, considering the situation and environs of the post. A large proportion of the malarious fevers were slight in character, and readily amenable to treatment.

Of diseases of the organs connected with the digestive system, ninety-five cases in all are reported, of which number mostly all were either diarrhœa or dysentery. The cases of dysentery were generally of a severe character, attended with high febrile excitement and great abdominal tenderness. The exciting cause, in almost all instances, was cold, and the attack usually *commenced* in the night.

The four cases of rubeola reported in the month of February occurred among the volunteers.

Under the name "hemeralopia" are reported five cases of what seemed to be exhaustion or debility of the retina, from excessive stimulation. The cause of this was undoubtedly the glaring reflection of the sun from the lake and white sand. It was characterized by dimness of vision during the day, accompanied sometimes by spectral figures and by partial or total blindness after and just before sunset.

All those affected recovered by simply wearing a green shade before the eyes, and avoiding to use them. In two of the cases small blisters were applied to the temples with apparent benefit. Nearly all the command suffered slightly in this way, but only five were prevented from doing duty. After the sheds were finished the affection gradually disappeared.

SANITARY REPORT—FORT CROSS.

Assistant Surgeon John F. Head: April, 1857.

Assistant Surgeon A. T. Ridgely, U. S. A., who was relieved by me on the 19th of February last, makes the following remarks in his monthly report to the medical director:

"Fort Cross was established January 14, 1857. * * * It is situated upon 'Palm Point,' or 'Middle Cape,' Cape Sable, and is about four miles northwest from old Fort Poinsett. It lies within a few paces of the Mexican Gulf, and upon a beautiful prairie about two and a half miles in length and three fourths of a mile in breadth at the broadest part. This prairie bears very much the form of a crescent, and its monotony is varied by an occasional mangrove or palmetto tree.

"The soil consists almost entirely of decomposed and decomposing sea-shells, with a small proportion of sand and vegetable mould. Its surface is rather scantily covered with a species of long grass, such as does not belong to wet or marshy localities. Such rain as falls is immediately absorbed, and excellent water can be obtained by digging. The prairie is bordered on the land side by a dense and very fertile hammock, a few yards only in breadth, in which, among

other growths, may be found many specimens of the royal palm: a few of which tower high above the surrounding forest, and afford much esteemed landmarks for the mariner at sea. Beyond this hammock is a mangrove swamp, which extends to an unknown distance towards the north and northeast, interspersed with salt lakes or inlets from the gulf. The swamp is doubtless covered with water during the rainy season, and upon the occurrence of unusually high tides.

"The post has not yet been occupied sufficiently long for me to speak positively as to the effect the locality will have upon the health of the troops. I am disposed to think, however, that the noxious effluvia of the marshes will be counteracted by the sea-breeze, and that the command will experience comparatively good health."

The above observations of Dr. Ridgely, in which I fully coincide, leave me but little to add in reference to the sanitary position and prospects of the post. Situated on a dry plain, and just within the course of the trade-wind, it will not probably be subject to endemic disease. All the fevers reported during the quarter doubtless had their origin in exposure in other places.

Diseases and injuries of the skin, ulcers, and dysentery, have been aggravated by a *scorbutic* tendency. The command suffers much from the want of fresh provisions and vegetables.

All persons acquainted with the place represent it as uninhabitable in summer, on account of the abundance of mosquitoes and sand-flies.

The level of the post has been ascertained to be about three feet eight inches above ordinary high-water mark, and some parts of the plain are probably three or four feet higher. It is believed, however, by those most competent to judge, that the plain is not overflowed even in violent hurricanes, owing to the shallowness of the water far seaward, and the many inlets near the post.

The tallest of the neighboring palms has been measured and found to be 103 feet high.

The command is very generally affected with scurvy; and dysentery, aggravated (perhaps caused) by that disorder, has prevailed to a considerable extent. The men are now furnished, however, with abundance of fresh turtle, which have begun to resort to the beach in great numbers; and the gardens furnish a scanty supply of vegetables.

I am obliged to add that the predictions relative to mosquitoes seem likely to be verified. The rainy season (the period of their greatest abundance) has hardly begun, but for more than a month these insects have been a continual torture to the men, day and night, except when a high wind has given a temporary respite. Tattoo and reveille have been dispensed with, and most of the men sleep under their sand-fly bars, pitched in the open air. Even this protection has often proved insufficient, the insects being so numerous as to render it impossible to keep them out of the bars; and on one occasion nearly the whole command was deprived of rest for two successive nights. If, as is asserted by the old coasters, these pests are to become much more numerous, the post is untenable during the summer months. It is stated that old Fort Poinsett, which it was intended to occupy for a summer, had to be abandoned from this cause.

No fevers have as yet originated here.

SANITARY REPORT—FORT DEYNAUD.

Assistant Surgeon B. A. Clements: June, 1857.

The present Fort Deynaud, established in February last, is situated some two and a half miles southwest of the former post of that name, on the west bank of the Caloosa Hatchee river, whose course at this point is nearly due north and south. The exact geographical position of the post and its altitude above the sea have not been determined.

The site of the post is a level spot of ground some twelve acres in extent, which has been cleared, with much labor, of a dense growth of scrub-palmetto and scrub-oak, leaving a few large live-oaks, which here and there afford a scanty shade; it is immediately on the edge of the river,

which is here forty yards wide, having steep banks from five to ten feet in height, which are covered down to the water's edge with a profuse growth of palmetto, live-oak, and vines.

A growth of large pine extends to within four hundred yards of the post on the west and north sides; this belt of timber is skirted on the sides toward the post by a number of small wet hammocks of cabbage-palmetto and by "slashes;" within one hundred yards of the southern edge of the post is a larger hammock, principally of live-oak, which extends some quarter of a mile back from the river, and has passing through it a small stream, which, in wet weather, would seem to communicate with the small hammocks and slashes on the west side. This stream appears to drain the large hammock through which it passes, as the latter is unusually dry.

The whole surrounding region is flat; the soil is sand, mixed with vegetable matter, the latter in greatest proportion along the river bank; underlying which, at a depth of from five feet near the river to two feet at a few hundred yards distance, is a stratum of limestone and shells from one to two feet and a half in thickness.

The ordinary tides here rise from two to two and a half feet, and make up as high as old Fort Thompson, some eight miles above this point. The water is impregnated with lime, and is occasionally brackish.

Since February last the command has been constantly engaged in the arduous duties attending the establishment of a new post—the clearing of the ground, erection of storehouses, quarters, &c. The loading, unloading, and escorting of trains added to the usual military duties, and occasional scouts, has necessitated much labor and a great exposure to the sun.

These circumstances, and especially the last, together with the probable emanations from the hammocks above noted as in such close proximity to the post, combined with damp nights, foggy mornings, and the insufficient shelter of tents during wet weather, have caused in the command a large number of cases of miasmatic fever; thus, the accompanying report of the sick for the quarter ending June 30, exhibiting a mean strength of seventy-one men, shows a total of sixty-two cases of intermittent and remittent fevers during the quarter. The majority of these cases have been attended with a great amount of gastro-hepatic disturbance and violent headaches, and many were cases of relapse; no means which the circumstances of the command have rendered it expedient for me to adopt have been of much service in preventing the occurrence of these relapses; nor do I think such a result likely to be attained, for the men, when returned to duty, are again subjected to the same influences which produced the original attack. Each month's exposure apparently induces increased liability to the attacks; and, although the completion of the men's quarters, now in process of erection, may obviate some of the minor causes of these diseases, I see no reason to hope for a more favorable state of their health until removed from this region.

The cases of diarrhœa (fourteen) and of dysentery (four) occurring during the quarter have not seemed at all dependent on the quality of the water, but have generally been clearly traceable to other causes, and in the last month numbered but two. The cases of gunshot wounds were all of accidental origin and of no special interest. No other cases in the report seem to call for particular comment.

A hospital building, thatched, has recently been completed, and has added much to the comfort of the sick.

SANITARY REPORT—FORT CENTER.

Assistant Surgeon Richard D. Lynde: April, 1857.

Fort Center is situated in the midst of a low flat prairie, on the bank of a small stream, the Tlalhlopopkahachee, about two miles from its mouth in a direct line. This stream is merely a drain for the marshes, which abound in this portion of the State, and empties into Lake Okeechobee, having at this point no perceptible current. Its shores are marshy along its whole

course, with the exception of a few elevated dry spots intervening and allowing approach to the water. On one of these the camp is situated. The prairie at this season is generally dry, having, however, marshy spots scattered over it; but during the wet season it is entirely covered with water. The lake is also bordered by a marsh, varying in width from a few hundred yards to a mile or more, and at the southern extremity it communicates with the Everglades. The soil is composed of sand mixed with black vegetable mould, the result of the decay of the luxuriant vegetation of this region, while in low marshy spots and on the borders of the stream and lake the tall grass and rushes lie matted, wet, and half decayed, a constant source of malaria. The weather has been very favorable to health during the month, as the temperature has not been very high and very little rain has fallen, but the nights have been very cool and the dews heavy. The post has consequently been unusually healthy for the season; but, as soon as the heat increases and the rains begin, the troops must suffer from those forms of disease arising from malaria, which, from the nature of the country and soil, must be abundantly generated. Indeed, almost all the cases treated during the month have been of diseases arising from this cause, notwithstanding the moderate degree of temperature and almost entire absence of rain. Under this head, I have included most of the cases of diarrhœa, for the treatment of this affection in this locality seems to be materially assisted by the employment of the sulphate of quinine, and, indeed, many of the patients entering with diarrhœa had an attack of febris intermittens before returning to duty. The cases of intermittent fever occurring in this manner are not enumerated in the report. There has been some disposition to scurvy also, which has been counteracted by the issue of antiscorbutics by the commissary department, and a few cases of hemeralopia among the men doing boat duty, arising from the reflection of the sun from the water of the lake, to which they are constantly exposed.

This command consists nominally of one company, but detachments from other companies, which it was found impossible to enumerate with the strength of the command on account of their transient stay and varying strength, furnished some of the cases contained in the report. It is quartered in tents, as there are no buildings, and the men are therefore much exposed. There is no hospital or hospital furniture, this post being but temporarily occupied, and the men are treated entirely in their tents. No inconvenience has arisen from this cause, except in the catarrhal cases and one or two cases of diarrhœa, which were assuming the chronic form, and therefore transferred to the general hospital at Fort Myers. The diet of the command is confined to the usual rations with the above-mentioned antiscorbutics, consisting of pickles, molasses, and dried fruit, with fresh beef lately received. The water used by all is that of the river, which is by no means healthy, being the drainings of swamp lands entirely, almost stagnant, and filled with the result of vegetable decomposition.

The police of the camp is excellent, and nothing is allowed to remain in or about it that will prejudice the health of the men; and temperance is supreme, as liquor cannot be obtained. No command could be in better condition than this is, in these two respects.

DISEASES.

The statistics presented in the abstract for this region, and in the following tables, cover a period of eleven years, from January, 1849, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	4,534	4,395	20	969	4.4
Second quarter	4,144	4,992	27	1,204	6.5
Third quarter	3,490	5,402	44	1,548	12.6
Fourth quarter	3,587	4,523	28	1,261	7.8
Annual ratio	3,939	19,312	119	4,902	30.2

The relative proportion of cases of sickness to the number of troops in this region is shown by the preceding table to be 4.90 to 1; and the corresponding ratio of deaths, 1 in 33.10, or 3.02 per cent. The ratio of deaths to the number of cases treated is 1 in 162.28, or 0.61 per cent.

FEVERS.

Quarters	First.		Second.		Third.		Fourth.		Year.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,534		4,144		3,490		3,587		3,939			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris congestiva	0	0	1	0	0	0	1	0	2	0	0 in 2	0.5
Febris continua communis	9	0	7	0	7	1	9	1	32	2	1 in 16	8
Febris intermittens quotidiana	565	0	945	0	1,075	0	1,232	0	3,817	0	0 in 3,817	969
Febris intermittens tertiana	861	1	668	0	1,022	2	758	0	3,309	3	1 in 1,103	840
Febris intermittens quartana	21	0	2	0	5	0	41	0	69	0	0 in 69	17.5
Febris remittens	84	0	183	0	288	4	227	5	782	9	1 in 87	198.5
Febris typhus et typhoides	4	0	3	1	8	2	3	1	18	4	2 in 9	4.5
Febris typhus icterodes	0	0	2	0	30	12	12	9	44	21	1 in 2	11
Total	1,544	1	1,811	1	2,435	21	2,283	16	8,073	39	1 in 207	2,049

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	First.		Second.		Third.		Fourth.		Year.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,534		4,144		3,490		3,587		3,939			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	2	1	0	0	0	0	2	1	1 in 2	.....
Diarrhœa	621	5	677	3	611	4	463	1	2,372	13	1 in 182	602
Dysenteria acuta	172	3	239	4	181	0	177	1	769	8	1 in 96	195
Dysenteria chronica	5	0	41	5	16	4	7	0	69	9	1 in 7.6	17.5
Enteritis	1	0	1	1	6	2	1	0	9	3	1 in 3	2.2
Hepatitis acuta	2	0	5	0	3	0	3	0	13	0	0 in 13	3.3
Hepatitis chronica	2	0	5	0	3	0	3	0	13	0	0 in 13	3.3
Obstipatio	127	0	198	0	212	0	122	0	659	0	0 in 659	167
All other diseases of this class	119	1	158	2	120	1	71	0	468	4	1 in 117	119
Total	1,049	9	1,326	16	1,152	11	847	2	4,374	38	1 in 115	1,110

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,534		4,144		3,490		3,587		3,939			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acute & chronic	48	0	14	1	11	0	21	0	94	1	1 in 94	23.8
Catarrhus	248	0	189	0	211	0	306	0	954	0	0 in 954	242
Phthisis pulmonalis	8	0	6	2	8	2	9	2	31	6	1 in 5	7.8
Pleuritis	13	0	5	0	8	0	7	0	33	0	0 in 33	8.6
Pneumonia	13	4	1	0	6	2	5	0	25	6	1 in 4	6.4
All other diseases of this class	23	0	12	0	5	0	8	0	48	0	0 in 48	12
Total	353	4	227	3	249	4	356	2	1,185	13	1 in 91	300
Rheumatismus	179	0	167	0	122	0	84	0	552	0	0 in 552	140

For the purpose of illustrating more fully the effects of the climate of Florida in its relations to health, the following communication from the Surgeon General to the Hon. David L. Yulee, of the United States Senate, is introduced:

SURGEON GENERAL'S OFFICE,
October 1, 1855.

SIR: In reply to your communication of the 16th of July last, in reference to the general healthfulness and climate of the Peninsula of Florida, particularly with regard to Fernandina and Cedar Keys, I would submit the following facts from the records of this office, with an expression of opinion derived from personal observation, as well as from statistical information.

Florida, washed on the east side by the Atlantic, and on the west and southwest by the waters of the Gulf, daily fanned by the breezes from the sea which are wafted over the whole face of the country, and with an atmosphere of equable temperature through winter and through summer, its climate cannot be more unfriendly to the health of man than that of the adjacent States, which present but one side or a small portion of their territory to the ocean. Florida may have more lakes on its surface, a few more rivers and rivulets, and a greater extent of swamp perhaps than the other States, but the exhalations from these sources are evidently modified and mollified by the universally pervading sea atmosphere, and must consequently be less destructive to human life than malaria which is eliminated by the swamps and bottom lands of Louisiana, Alabama, Georgia, and South Carolina, or by the banks of the water-courses even of other more northern sections of country.

I have served in Florida and participated with the troops in the privations and the toils of the field, and I have served also with an army on the northern frontier, and from my experience of the influence of climate and of active operations in the field upon the health of soldiers, I have no hesitation in expressing the belief that had the troops who were employed in the Florida war, been engaged for the same length of time in active operations in winter and summer on the frontiers of Canada, though the *cases* of *indisposition* might have been less numerous, the *mortality* would have been infinitely greater than was experienced in Florida. The general healthfulness of many parts of Florida, particularly on its coasts, is proverbial. The average annual mortality of the whole peninsular, derived from returns in this office, is found to be 2.6 per cent., while of the other portions of the United States (previous to the war with Mexico) it is 3.5. The annual average of fevers of malarial origin in some parts of the State is very high, and in others very low, making a general average of about fifty-eight per cent. The generality of fatal cases during the Seminole war, and previously, were from enteric disorders, to which

troops were more liable than persons in civil life. The higher ratio of sickness, in general, among troops in the field than among civilians is more attributable to their constant and severe duties and greater exposure to morbific influences, than to peculiarities of climate.

As the data from which the conclusions herein set forth are taken from military records, we must consequently make due allowance for the fact that the ratio of *cases under treatment* among troops and among citizens, is higher in the former than in the latter case. And this may be accounted for in a great measure by the fact, that among the working classes of middle life, those cases only are recorded and enter into statistical data, which interfere with or prohibit manual labor, whereas among soldiers the slightest cases of indisposition are reported. In the latter case an admission on the sick list secures an exemption from labor, while in the former it occasions a loss of wages.

Let us now compare the number of cases annually treated in Florida, with the cases under treatment at other sections of the country, as furnished by the army records, and we find the following ratio: Along the region of the northern lakes, the number of cases under treatment was 200 per cent., the *mortality* being 0.9 per cent.; along the coast of New England nearly the same percentage of cases under treatment, (191,) and the mortality 1.5 per cent.; through the interior of our country, (those points north of latitude 39°, and distant from the lakes or Atlantic, *e. g.*, the northeast line of Maine, the interior of New York, Pennsylvania, Iowa, Missouri, the northern part, Wisconsin and Minnesota,) we find the percentage of cases annually treated a little over 300, with a mortality of 0.8 per cent. Again, along the Atlantic coast from New Jersey to Georgia, the number treated is not quite as high as the last, being about 289 per cent., with a mortality of three per cent. In the Southwestern States, the lower part of Missouri, Arkansas, West Tennessee, Mississippi, the Red river country, and Indian territories south of latitude 36°, it is very large, being 350 per cent., while the mortality is 3.6 per cent. In the territory adjacent to the Lower Mississippi river, it is reduced to 286 per cent. of cases treated, (except, perhaps, when visited by unusually severe epidemics, as in late years,) with the mortality of 4.4 per cent., while in Florida the average of cases annually treated is 246 per cent., and the mortality, as before shown, is 2.6 per cent. While, therefore, the ratio of mortality among the troops in the northern part of the United States is less than in Florida; on the other hand, the average mortality in Florida is less than in other sections of the Southern and Southwestern States; which, in fact, are the proper points of comparison, on account of similarity of diseases and geographical position.

To illustrate the actual and comparative sickness and mortality of the Peninsular of Florida, we may take as points of comparison three posts on nearly the same latitude, one established on the Atlantic coast, (Fort Marion, St. Augustine,) one in the interior, (Fort King,) and a third on the Gulf coast, (Fort Brooke,) and we find that at Fort Marion the average annual mortality for a period of eleven years (from 1824 to 1834 inclusive) is 2.36 per cent. In some of those years (1829, 1832, and 1833) no deaths were reported.

The highest mortality for any single year was (in 1828) 7.01 per cent.; the lowest was (in 1825) 0.91 per cent.

At *Fort Brooke* we have the annual average mortality for a period of nine years of 1.01 per cent. The highest being (in 1830) 3.44 per cent., and the lowest (1824) 0.96. In three of the years (1827, 1831, and 1832) no deaths were reported.

At *Fort King* we have returns for only a few years embraced in the periods above given. The average annual mortality, however, for three years (1827 to 1829 inclusive) is 1.19 per cent. In 1829 no deaths were reported. The highest mortality (in 1828) was 2.04 per cent.; the lowest (in 1827) 1.63 per cent. The subjoined tables will place these facts in another form.

FORT MARION.				FORT BROOKE.				FORT KING.			
Year.	Number of deaths.	Mean strength.	Per cent. of mortality.	Year.	Number of deaths.	Mean strength.	Per cent. of mortality.	Year.	Number of deaths.	Mean strength.	Per cent. of mortality.
1824	1	103	0.97	1824	2	207	0.96	1824			
1825	1	109	0.91	1825	2	182	1.09	1825			
1826	2	80	2.50	1826	*2	192	1.04	1826			
1827	†3	57	5.26	1827	0	167	0.00	1827	1	61	1.63
1828	4	57	7.01	1828	2	169	1.18	1828	1	49	2.04
1829	0	54	0.00	1829	3	206	1.45	1829	0	52	0.00
1830	†2	55	3.63	1830	†4	116	3.44	1830			
1831	2	55	3.63	1831	0	93	0.00	1831			
1832	2	53	3.56	1832	0	91	0.00	1832			
1833	0	48	0.00	1833				1833	2		
1834	0	48	0.00	1834				1834	1		

* One death from intoxication. † Two deaths from intoxication. ‡ One death by drowning.

The climate of Florida is remarkably equable and proverbially agreeable, being subject to fewer atmospheric variations, and its thermometric ranges much less than any other part of the United States, except a portion of the coast of California.

For example, the winter at Fort Snelling, Minnesota Territory, is 48° colder than at Fort Brooke, but the summer at Fort Brooke is only about 8° warmer. The mean annual temperature of Augusta, Georgia, is nearly 8°, and of Fort Gibson, Arkansas, upwards of 10° lower than at Tampa, yet in both those places the mean *summer* temperature is higher than at Fort Brooke. In the summer season the mercury rises higher in every other part of the United States, and even in Canada, than it does along the coast of Florida. This is positively shown by meteorological statistics on file in this bureau. At Portland, and on the coast of New England, the thermometer attained an average height in summer of 94° Fahrenheit, and in winter descends to —7°, having an annual range of 101°. At Fort Mifflin, near Philadelphia, the thermometer has an annual range of 87°, rising to 95° Fahrenheit in summer, and falling to 8° in winter. At Fort Moultrie, Charleston harbor, the average range is 70°, being in summer 90° degrees, and in winter 20°. At Fort Pierce, (or Capron,) Indian river, Florida, the range is 59°, the annual range averaging for its highest point 94°, and the lowest 35°. At Fort Brooke the annual range is 58°, being 92° in summer, and 34° in winter; while at Key West the average annual range is only 35°, being for summer 89°, and 54° for winter. If we were to extend our comparison by including the stations in the interior of the United States, remote from the influences of the sea-breezes, the difference would be still more apparent. The point under consideration will however be illustrated sufficiently by comparing the temperature of Florida, as above given, with that of portions of Texas, lying within the same parallels of latitude. At Fort Brown, near the mouth of the Rio Grande, and where the summer heats are much modified by the strong coast-breeze, the mean annual range is 67°, or from 95° in summer to 28° in winter. In the interior of Texas the range is very great, the summer heats rising to a mean of 112° in the valley of the Rio Grande at Laredo, (Fort McIntosh,) and to 103° at the posts on the upper plains. It falls to a mean of 20° in winter on the Rio Grande valley, and to 10° on the plains, making the range near 92° in each case. At Fort Smith, Arkansas, the range is 108°, having the summer temperature of 103°, and the winter of —5°.

The climate of *Fernandina*, as far as we have returns, is shown to be extraordinarily equable. The *lowest mean* temperature of any month was 54°, (January, 1821.) The *highest mean* temperature of any month was 84°, (September, 1821,) giving a range of 30° between the coldest and warmest months. The mean temperature for the first six months of 1820 was 67°; for the first six months of 1821, it was 66°; for the whole year, (1820) 69°. The prevailing winds for the six months of 1820, were for four months (February, April, May, and June) S. E., for two months (January and March) N. E. The prevailing weather was *Fair*, by large odds. In 1821, the prevailing winds were for six months (February, May, June, July, August, September) S. E. The other months N. E. and N. W. The prevailing weather during the *year*, was "*Fair*," there being only four months in which there was a *slight* excess of cloudy or wet weather over fair.

The climate of Cedar Keys is very similar to that of Fernandina. The mean temperature of the former in the year 1842 being nearly the same as that of the latter in 1821, and of the first six months of both years precisely the same. The prevailing winds for five months (generally spring and summer) were S. E., and four months (winter and fall) N. E.

It is to be regretted that the meteorological records at both these points are so few, and I should here remark that the years above instanced were not *selected* in order to present a favorable comparison, but it so happens that they are the only *complete* years found on file.

As regards the *healthfulness* of these two points, it is deemed sufficient to state that Fernandina enjoys the reputation of unexceptional salubrity, well worthy the characteristics of its equable climate. When the post was first established in 1819, the prevailing diseases were enteric, with fevers of malarial origin.

In the year following, (1820,) the proportion of cases of intermittent and remittent fevers was diminished, and the mortality was also less, being of the whole number of *cases treated* less than one per cent., and of the whole command about two per cent. Each man was on the sick report about every five months.

Cedar Keys was selected as the site for a general hospital, on account of its salubrious position. The sick of other posts (generally chronic cases) were transferred to that point from the different garrison and regimental hospitals established with the troops operating in the field, and therefore the records will not afford fair evidence of the effect of its local or climatic influences upon the health of the troops. The prevailing disorders were enteric. The number of deaths occurring during the year was nineteen, all of this class of disease; leaving it to be inferred, either that no other diseases originated on the island, or, if otherwise, they were very curable. The records of the sickness and mortality at both these places are too limited to give any precise statistical information illustrative of the local influences affecting their claims to be regarded as healthful sections of the country.

I have the honor to be, very respectfully, your obedient servant,

TH. LAWSON,
Surgeon General.

Hon. D. L. YULEE,
United States Senate.

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN

FLORIDA.

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES		FIRST QUARTER													
	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	251.		310.		251.		[illegible]		[illegible]		73.		1,9[illegible]	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis..	5	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	.....
	Febris inter. quotidiana	20	.....	.....	.....	36	.....	5	.....	2[illegible]	.....	9[illegible]	.....	106	.....
	Febris intermittens tertiana.	21	.....	4	.....	21	.....	2	.....	18	.....	9	.....	7[illegible]	.....
	Febris intermittens quartana	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Febris remittens	7	.....	3	.....	1	.....	.....	.....	1	.....	1	.....	16	.....
	Febris typhus et typhoides..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Erysipelas.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Eruptive fevers	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicoides.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa.....	8[illegible]	.....	111	.....	23	.....	21	.....	22	.....	[illegible]	.....	25[illegible]	.....
	Dysenteria acuta	37	.....	11	.....	6	.....	6	.....	1	.....	.....	.....	61	.....
	Dysenteria chronica	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1
	Enteritis.....	1	.....	4	.....	3	.....	1	.....	.....	.....	.....	.....	9	.....
	Hepatitis acuta.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio.....	33	.....	3	.....	6	.....	1[illegible]	.....	21	.....	8	.....	81	.....
	All other diseases.....	15	.....	9	.....	8	.....	5	.....	7	.....	[illegible]	.....	49	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	[illegible]	.....	4	.....	.....	.....	4	.....	2	.....	.....	.....	15	.....
	Catarrhus.....	21	.....	[illegible]	.....	9	.....	.....	.....	6	.....	3	.....	47	.....
	Phthisis pulmonalis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Pleuritis.....	3	.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
	Pneumonia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	2	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
Diseases of the brain and nervous system.	Cephalalgia	2	.....	6	.....	2	.....	.....	.....	1	.....	2	.....	13	.....
	Delirium tremens.....	.....	.....	.....	.....	.....	.....	.....	.....	[illegible]	.....	.....	.....	8	.....
	Epilepsia	2	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	5	.....
	Neuralgia.....	5	.....	3	.....	.....	.....	2	.....	.....	.....	.....	.....	10	.....
	All other diseases.....	.....	.....	[illegible]	.....	3	.....	.....	.....	.....	.....	.....	.....	21	.....
Diseases of the urinary and genital organs.	Gonorrhœa	3	.....	4	.....	.....	.....	1	.....	.....	.....	.....	.....	8	.....
	Strictura urethræ	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Syphilis primitiva.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....
	Syphilis consecutiva.....	4	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
	All other diseases.....	6	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	8	.....
Diseases of the serous and exhalent vessels.	Ascites.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Peritonitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus.....	21	.....	21	.....	13	.....	16	.....	16	.....	2	.....	89	.....
Abscesses and ulcers	Fistula.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Phlegmon et abscessus	37	.....	7	.....	11	.....	2[illegible]	.....	8	.....	2	.....	92	.....
	Ulcus.....	8	.....	5	.....	7	.....	4	.....	2	.....	.....	.....	26	.....
Wounds and injuries	Ambustio.....	3	.....	4	.....	1	.....	1	.....	.....	.....	.....	.....	9	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	17	.....	3	.....	13	.....	8	.....	3	.....	4	.....	48	.....
	Fractura.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Luxatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Punctio.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Sub luxatio	7	.....	3	.....	2	.....	5	.....	5	.....	2	.....	24	.....
	Vulnus incisum.....	17	.....	11	.....	3	.....	9	.....	.....	.....	.....	.....	40	.....
	Vulnus lacceratum	4	.....	4	.....	3	.....	5	.....	.....	.....	.....	.....	16	.....
	Vulnus punctum.....	7	.....	1	.....	1	.....	4	.....	.....	.....	.....	.....	13	.....
	Vulnus sclopeticum	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
Miscellaneous	Debilitas	5	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	9	.....
	Ebrietas.....	4	.....	.....	.....	1	.....	1	.....	.....	.....	9	.....	15	.....
	Hæmorrhois.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....
	Hernia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Morbi cutis.....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	7	.....
	Morbi oculi	2	.....	7	.....	1	.....	6	.....	5	.....	1	.....	22	.....
	Scorbutus.....	1	.....	1	.....	2	.....	3	.....	.....	.....	.....	.....	7	.....
	Suicidium.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases.....	41	.....	13	.....	2	.....	11	.....	2	.....	.....	.....	69	.....
	Total	479	1	297	.....	182	.....	169	.....	162	.....	69	.....	1,358	1

AMONG THE TROOPS AT POSTS ON THE ATLANTIC COAST OF FLORIDA.

CLASSES OF DISEASES.	SECOND QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	835.		333.		222.		302.		75.		65.		1,832.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	2												2	
	Febris inter. quotidiana	61		11		19		15		2		3		111	
	Febris intermittens tertiana	25		12		44		15		1		13		110	
	Febris intermittens quartana	2		2								2		6	
	Febris remittens	11		28		1		16		3				59	
	Febris typhus et typhoides														
	Febris typhus icterodes	9	2											9	2
Eruptive fevers	Erysipelas	4				1								5	
	Rubeola														
	Scarlatina														
	Variola														
	Variolodes														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	126		112		12		63		16		1		330	
	Dysenteria acuta	24	1	30		5		15				1		75	1
	Dysenteria chronica	3	2	12		1								16	2
	Enteritis	1		1	1	1								3	1
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	23		17		8		18		11		5		82	
	All other diseases	33		13		4		15		6				71	
Diseases of the respiratory system.	Bronchitis acuta et chronica	1		3		1		11						16	
	Catarrhus	15		1		2		4		1		1		24	
	Phthisis pulmonalis			1										1	
	Pleuritis	2		1										3	
	Pneumonia			1										1	
	All other diseases			8										8	
Diseases of the brain and nervous system.	Cephalalgia	7		7		2						2		18	
	Delirium tremens	4						2		2				8	
	Epilepsia	2		1		1								4	
	Neuralgia	3												3	
	All other diseases	4				3		2						9	
Diseases of the urinary and genital organs.	Gonorrhœa	6		1				1						8	
	Strictura urethræ	2												2	
	Syphilis primitiva	2												2	
	Syphilis consecutiva	6		2		2								10	
	All other diseases	3		2				2				2		9	
Diseases of the serous and exhalent vessels.	Ascites	1						1	1					2	1
	All other diseases														
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	22		16		3		11		3		2		57	
Abscesses and ulcers	Fistula														
	Phlegmon et abscessus	52		16		9		30		4		2		113	
	Ulcus	7		8				9				1		25	
Wounds and injuries	Ambustio	3		4								1		8	
	Amputatio														
	Contusio	28		9		5		6		3		5		58	
	Fractura	1				1		1						3	
	Luxatio														
	Punctio			2										2	
	Sub luxatio	5		1		1		1		1		1		10	
	Vulnus morsum	15		12	1	4		8				1		40	1
	Vulnus laceratum	2		1		3		4						10	
	Vulnus punctum	5						1		3		1		10	
	Vulnus sclopeticum			1										1	
Miscellaneous	Debilitas	2		4		1		3		1				11	
	Ebrietas	9		3		1		6		8	1	6		33	1
	Hæmorrhois	5		2				1						8	
	Hernia	2								1				3	
	Morbi cutis	7		1		2		6		3				22	
	Morbi oculi	10		15		1		11		2		1		45	
	Scorbutus			7				6						13	
	Suicidium														
	All other diseases	45		23		10		18		1		3		100	
	Total	602	5	396	2	151		302	1	74	1	54		1,579	9

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	900.		326.		224.		248.		92.		58.		1,848.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1
	Febris continua communis	6	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	7	2
	Febris inter quotidiana	158	.....	144	.....	19	.....	46	.....	14	.....	10	.....	391	.....
	Febris intermittens tertiana	59	.....	9	.....	21	.....	31	.....	28	.....	4	.....	143	.....
	Febris intermittens quartana	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Febris remittens	56	.....	30	1	3	.....	18	.....	4	.....	6	.....	117	1
	Febris typhus et typhoides	.....	.....	1	.....	.....	.....	1	1	.....	.....	.....	.....	2	1
	Febris typhus icterodes	24	9	.....	.....	.....	.....	.....	.....	1	1	.....	.....	25	10
Eruptive fevers	Erysipelas	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolondes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1
	Diarrhœa	167	.....	59	.....	16	.....	43	.....	8	.....	3	.....	296	.....
	Dysenteria acuta	39	.....	51	2	15	.....	14	.....	.....	.....	.....	.....	119	2
	Dysenteria chronica	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Enteritis	1	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	Hepatitis chronica	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Obstipatio	33	.....	14	.....	6	.....	14	.....	11	.....	9	.....	87	.....
	All other diseases	22	.....	14	2	4	.....	11	.....	2	.....	1	.....	54	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	.....	.....	2	.....	1	.....	.....	.....	1	.....	.....	.....	4	.....
	Catarrhus	18	.....	14	.....	3	.....	2	.....	7	.....	.....	.....	44	.....
	Phthisis pulmonalis	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	2	2
	Pleuritis	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Pneumonia	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the brain and nervous system.	Cephalalgia	17	.....	5	.....	.....	.....	2	.....	.....	.....	2	.....	26	.....
	Delirium tremens	2	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	5	.....
	Epilepsia	1	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	4	.....
	Neuralgia	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	2	1	2	1	1	.....	3	2	.....	.....	1	.....	9	4
Diseases of the urinary and genital organs.	Gonorrhœa	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Structura urethræ	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Syphilis primitiva	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis consecutiva	4	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	All other diseases	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Pemio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	21	.....	11	.....	3	.....	7	.....	.....	.....	1	.....	43	.....
	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Abscesses and ulcers	Phlegmon et abscessus	117	.....	59	.....	10	.....	32	.....	9	.....	6	.....	233	.....
	Ulcus	17	.....	9	.....	.....	.....	13	.....	1	.....	.....	.....	40	.....
Wounds and injuries	Ambustio	2	.....	1	.....	.....	.....	8	.....	.....	.....	.....	.....	11	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	31	.....	6	.....	2	.....	6	.....	1	.....	3	.....	49	.....
	Fractura	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Luxatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Punctio	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Subluxatio	6	.....	3	.....	4	.....	1	.....	2	.....	.....	.....	16	.....
	Vulnus incisum	14	.....	10	.....	.....	.....	5	.....	2	.....	2	.....	33	.....
	Vulnus laceratum	4	.....	2	.....	.....	.....	2	.....	.....	.....	.....	.....	8	.....
	Vulnus punctum	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	2	.....
Miscellaneous	Debilitas	2	.....	7	.....	3	.....	3	.....	.....	.....	.....	.....	15	.....
	Ebrietas	6	.....	1	.....	1	.....	1	.....	7	.....	6	.....	22	.....
	Hæmorrhois	4	.....	3	.....	3	.....	.....	.....	.....	.....	.....	.....	10	.....
	Hernia	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Morbi cutis	3	.....	22	.....	5	.....	3	.....	6	.....	7	.....	46	.....
	Morbi occuli	11	.....	4	.....	1	.....	5	.....	2	.....	1	.....	24	.....
	Scorbutus	.....	.....	3	.....	1	.....	3	.....	.....	.....	.....	.....	7	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1
	All other diseases	39	.....	6	.....	16	.....	10	.....	.....	.....	4	.....	75	.....
	Total	897	12	502	9	141	.....	290	4	107	1	69	2	2,006	28

AMONG THE TROOPS AT POSTS ON THE ATLANTIC COAST OF FLORIDA.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	751.		327.		295.		219.		87.		55.		1,737.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	4	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	7	.....
	Febris inter. quotidiana	39	.....	145	.....	16	.....	24	.....	5	.....	7	.....	236	.....
	Febris intermittens tertiana	32	.....	27	.....	8	.....	12	.....	32	.....	2	.....	113	.....
	Febris intermittens quartana	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
	Febris remittens	12	.....	14	.....	9	.....	6	.....	.....	.....	1	.....	42	.....
	Febris typhus et typhoides	.....	.....	1	.....	.....	.....	.....	.....	1	1	.....	.....	2	1
	Febris typhus icterodes	.....	.....	.....	.....	15	3	.....	.....	.....	.....	.....	.....	15	3
Eruptive fevers	Erysipelas	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	108	.....	62	.....	61	.....	19	.....	12	.....	11	.....	273	.....
	Dysenteria acuta	18	.....	23	.....	8	.....	6	.....	2	.....	1	.....	58	.....
	Dysenteria chronica	2	.....	5	.....	.....	.....	1	.....	.....	.....	.....	.....	8	.....
	Enteritis	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio	14	.....	13	.....	7	.....	10	.....	18	.....	7	.....	69	.....
	All other diseases	14	1	20	.....	15	.....	10	.....	6	.....	2	.....	67	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	.....	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	Catarrhus	26	.....	26	.....	6	.....	22	.....	12	.....	2	.....	94	.....
	Phthisis pulmonalis	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Pleuritis	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Pneumonia	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	.....	.....	.....	.....	4	.....	2	.....	.....	.....	.....	.....	6	.....
Diseases of the brain and nervous system.	Cephalalgia	11	.....	10	.....	.....	.....	2	.....	.....	.....	1	.....	24	.....
	Delirium tremens	1	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	3	.....
	Epilepsia	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Neuralgia	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	1	2	2	.....	1	.....	.....	.....	.....	.....	.....	.....	4	2
Diseases of the urinary and genital organs.	Gonorrhœa	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....
	Strictura urethræ	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Syphilis primitiva	4	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	7	.....
	Syphilis consecutiva	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	All other diseases	6	.....	2	.....	2	.....	.....	.....	.....	.....	1	.....	11	.....
Diseases of the serous and exhalent vessels.	Ascites	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	16	.....	5	.....	12	.....	4	.....	3	.....	.....	.....	40	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phlegmon et abscessus	31	.....	23	.....	21	.....	20	.....	4	.....	.....	.....	99	.....
	Ulcus	9	.....	11	.....	1	.....	3	.....	2	.....	1	.....	27	.....
Wounds and injuries	Ambustio	2	.....	3	.....	1	.....	1	.....	.....	.....	1	.....	8	.....
	Amputatio	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	10	.....	7	.....	2	.....	5	.....	1	.....	2	.....	27	.....
	Fractura	.....	.....	1	.....	1	.....	1	.....	.....	.....	1	.....	4	.....
	Luxatio	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
	Punitio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Sub luxatio	2	.....	3	.....	7	.....	4	.....	2	.....	1	.....	19	.....
	Vulnus incisum	12	.....	6	.....	10	.....	4	.....	1	.....	1	.....	34	.....
	Vulnus lacceratum	.....	.....	7	.....	18	.....	1	.....	4	.....	.....	.....	30	.....
	Vulnus punctum	3	.....	1	.....	6	.....	.....	.....	.....	.....	.....	.....	10	.....
	Vulnus sclopeticum	1	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	4	.....
Miscellaneous	Debilitas	1	.....	5	.....	1	.....	4	.....	.....	.....	.....	.....	11	.....
	Ebrietas	2	.....	4	.....	.....	.....	1	.....	1	.....	.....	.....	8	.....
	Hæmorrhois	4	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	7	.....
	Hernia	3	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	5	.....
	Morbi cutis	2	.....	5	.....	3	.....	2	.....	1	.....	.....	.....	13	.....
	Morbi oculi	4	.....	2	.....	5	.....	4	.....	.....	.....	1	.....	16	.....
	Scorbutus	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	5	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	36	.....	15	.....	17	.....	3	.....	.....	.....	2	.....	73	.....
	Total	440	3	459	.....	277	3	177	.....	110	1	45	.....	1,508	7

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG

FIRST QUARTER.

CLASSES OF DISEASES.	Years	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	2,299.		352.		419.		1,346.		100.		68.		1,534.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	1												9	
	Febris inter quotidiana	254		3		59		183		9		4		505	
	Febris intermittens tertiana	382	1	14		124		133		7				861	1
	Febris intermittens quartana	18						3						21	
	Febris remittens	48		3		29		10		3				84	
	Febris typhus et typhoides	3								1				4	
	Febris typhus ictericodes														
Eruptive fevers	Erysipelas			2										2	
	Rubeola							25						25	
	Scarlatina														
	Variola														
	Varioloides														
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	222	2	38		62		282	3	16		1		621	5
	Dysenteria acuta	64	1	16	1	51	1	35		6				172	3
	Dysenteria chronica	3								2				5	
	Enteritis	1												1	
	Hepatitis acuta	2												2	
	Hepatitis chronica	2												2	
	Obstipatio	42		10		22		48		2		3		127	
	All other diseases	61	1	13		21		19		5				119	1
Diseases of the respiratory system.	Bronchitis acuta et chronica	10				1		17				20		48	
	Catarrhus	45		10		61		56		2				218	
	Phthisis Pulmonalis	3		1		2		2						8	
	Pleuritis	4		1				7				1		13	
	Pneumonia	3				1		7	3	2	1			13	4
	All other diseases	16		4		1		1				1		23	
Diseases of the brain and nervous system.	Cephalalgia	5		2				13						20	
	Delirium tremens	16	1	1		4	2	1		1		4		27	3
	Epilepsy	5				2		3						10	
	Neuralgia	2						1						3	
	All other diseases	4				2		3						9	
Diseases of the urinary and genital organs.	Gonorrhœa	19		4		2		2						27	
	Stricture urethræ					1								1	
	Syphilis primitiva			3				1						7	
	Syphilis consecutiva	12						6				1		19	
	All other diseases	5		1		1		11						18	
Diseases of the serous and cellular tissues.	Ascites									1				1	
	All other diseases	4				1				1	1			6	1
Diseases of the fibrous and muscular structures.	Pemio														
	Podagra														
	Rheumatismus	54		17		50		51		5		2		179	
Abscesses and ulcers	Fistula	4		1										5	
	Phlegmon et abscessus	110		27		25		53				1		216	
	Ulcus	26		4		2		18						50	
Wounds and injuries	Ambustio	4		2				3						9	
	Amputatio	1												1	
	Contusio	81		14		27		35		4				162	
	Fractura	15		1										16	
	Luxatio	3										1		4	
	Punctio									1				1	
	Sub luxatio	22		3		12		18				2		57	
	Vulnus morsum	51		18		13		20		2		3		107	
	Vulnus laceratum	5		2		1		6				3		17	
	Vulnus punctum	7						1				1		9	
	Vulnus sclopeticum	3				2		26	2					31	2
Miscellaneous	Debilitas	11		1		4		29		5		2		55	
	Ebrietas	19		6		4		1				3		33	
	Hæmorrhoïdes	6				5		8		2		1		22	
	Hernia	4		2		1		1						8	
	Morbi cutis	1		1		3		9		2				22	
	Morbi oculi	11		2		10		28						51	
	Scorbutus	2				7		26		4				39	
	Suicidium														
	All other diseases	86		18		14		54				8		180	
	Total	2,019	6	323	1	641	3	1,259	8	91	2	62		4,395	20

THE TROOPS AT POSTS IN THE INTERIOR AND ON THE GULF COAST OF FLORIDA.

CLASSES OF DISEASES.	SECOND QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,505.		466.		407.		684.		25.		67.		4,144.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva					1								1	
	Febris continua communis	5						2						7	
	Febris inter. quotidiana	777		5		55		97		4		7		945	
	Febris intermittens tertiana	346		15		184		126						668	
	Febris intermittens quartana	2												2	
	Febris remittens	139		9		38		36						183	
	Febris typhus et typhoides	3	1											3	1
	Febris typhus pestiformis	2												2	
	Erysipelas	1		1								1		3	
Eruptive fevers	Rubeola							1						1	
	Scarlatina														
	Variola														
	Variolaides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica	1	1					1						2	1
	Diarrhœa	395	1	78	1	100		184	1	1		9		677	3
	Dysenteria acuta	59	1	56		58		34		1				239	4
	Dysenteria chronica	11	1	25		1		3	1					41	5
	Enteritis	1	1											1	1
	Hepatitis acuta	1						1						5	
	Hepatitis chronica	3				2								5	
	Obstipatio	91		23		33		46		2		3		198	
	All other diseases	84	1	20		13		37	1	2		2		158	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	3						8	1			3		14	1
	Catarrhus	51		28		71		26		2		1		189	
	Phthisis pulmonalis	3	1	1	1							2		6	2
	Pleuritis	3		1		1								5	
	Pneumonia	1												1	
	All other diseases	10						2						12	
Diseases of the brain and nervous system.	Cephalalgia	19		4		1		5				1		30	
	Delirium tremens	10				1						1		12	
	Epilepsia	5		7		5		2						19	
	Neuralgia	4				1		4						9	
	All other diseases	5	1	3		5		2				1		16	1
Diseases of the urinary and genital organs.	Gonorrhœa	11		1		1		2				2		17	
	Strictura urethræ					1								1	
	Syphilis primitiva	4		1										5	
	Syphilis consecutiva	7		1				3						11	
	All other diseases	11		1		1		4		1				18	
Diseases of the serous and exhalent vessels.	Ascites							1						1	
	All other diseases	1		1		2		1						5	
Diseases of the fibrous and muscular structures.	Perino														
	Podagra														
	Rheumatismus	59		22		44		32						167	
Abscesses and ulcers	Fistula					2								2	
	Phlegmon et abscessus	136		52		52		39						259	
	Ulcus	29		6		5		6						46	
Wounds and injuries	Ambustio	9		1		2		4						16	
	Amputatio	2												2	
	Contusio	79		25		25		25				3		157	
	Fractura	5		2		1		1						9	
	Luxatio	3		1				1						5	
	Sub luxatio	18		8		6		4						36	
	Vulnus incisum	83		15		8		13	1	1		1		121	1
	Vulnus laceratum	5		2				1						8	
	Vulnus punctum	9		2		1		3						15	
	Vulnus sclopeticum	2				12		7	2					21	2
Miscellaneous	Debilitas	25		14		45		19	1					103	1
	Ebrietas	39		6		11		7		1		6		70	
	Hæmorrhois	13		4		3		3				1		24	
	Hernia	4		2		4		1				1		12	
	Morbi cutis	16		8		1		3						28	
	Morbi oculi	29		11		5	1	33				2		80	1
	Scorbutus	8		14		1		37		1				61	
	Suicidium					1	1							1	1
	All other diseases	171		22		22		19				3		237	
	Total	2,728	15	509	2	803	2	886	8	16		50		4,992	27

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING AMONG

CLASSES OF DISEASES.		THIRD QUARTER.											
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	2,014.		522.		568.		255.		74.		57.		3,490.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	5	.....	.....	.....	.....	.....	2	1	.....	.....	.....	.....	7	1
	Febris inter. quotidiana	848	.....	39	.....	142	.....	42	.....	2	.....	2	.....	1,075	.....
	Febris inter. remittens tertiana	322	.....	112	.....	338	.....	238	2	12	.....	.....	.....	1,022	2
	Febris intermittens quartana	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Febris remittens	291	.....	23	.....	11	1	23	3	.....	.....	.....	.....	288	4
	Febris typhus et typhoides	6	1	.....	.....	.....	.....	2	1	.....	.....	.....	.....	8	2
	Febris typhus reteroides	30	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30	12
Eruptive fevers	Erysipelas	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	224	4	92	.....	154	.....	113	.....	26	.....	2	.....	611	4
	Dysenteria acuta	59	.....	79	.....	24	.....	16	.....	3	.....	.....	.....	181	.....
	Dysenteria chronica	7	2	1	.....	5	2	3	.....	.....	.....	.....	.....	16	4
	Enteritis	5	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	2
	Hepatitis acuta	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis chronica	.....	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	3	.....
	Obstipatio	77	.....	56	.....	42	.....	36	.....	1	.....	.....	.....	212	.....
	All other diseases	74	.....	7	.....	17	.....	19	1	2	.....	1	.....	120	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	3	.....	.....	.....	2	.....	1	.....	1	.....	4	.....	11	.....
	Catarrhus	59	.....	93	.....	39	.....	18	.....	.....	.....	2	.....	211	.....
	Phthisis pulmonalis	7	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1	8	2
	Pleuritis	3	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	8	.....
	Pneumonia	2	.....	.....	.....	.....	.....	4	2	.....	.....	.....	.....	6	2
	All other diseases	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
Diseases of the brain and nervous system.	Cephalalgia	26	.....	4	.....	1	.....	.....	.....	3	.....	.....	.....	34	.....
	Delirium tremens	12	2	2	1	1	.....	3	1	1	.....	1	.....	20	4
	Epilepsia	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Neuralgia	10	.....	.....	.....	2	.....	3	.....	.....	.....	.....	.....	15	.....
	All other diseases	10	1	.....	.....	3	.....	3	.....	3	.....	.....	.....	19	1
Diseases of the urinary and genital organs.	Gonorrhœa	20	.....	2	.....	.....	.....	1	.....	1	.....	.....	.....	24	.....
	Strictura urethræ	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	Syphilis primitiva	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Syphilis consecutiva	4	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	5	.....
	All other diseases	10	.....	1	.....	2	.....	1	.....	1	.....	.....	.....	15	.....
Diseases of the serous and exhalent vessels.	Ascites	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	All other diseases	5	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	6	1
Diseases of the fibrous and muscular structures.	Perinæ	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	50	.....	15	.....	34	.....	21	.....	2	.....	.....	.....	122	.....
Abscesses and ulcers	Fistula	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	207	.....	100	.....	55	.....	36	.....	10	.....	2	.....	410	.....
	Ulcus	32	.....	7	.....	4	.....	9	.....	.....	.....	.....	.....	52	.....
Wounds and injuries	Ambustio	9	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	12	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	38	.....	16	.....	14	.....	13	.....	.....	.....	2	.....	83	.....
	Fractura	3	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	5	.....
	Luxatio	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	2	.....
	Punctio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Sub-luxatio	17	.....	12	.....	2	.....	1	.....	1	.....	.....	.....	33	.....
	Vulnus morsum	48	.....	8	.....	10	.....	6	.....	3	.....	2	.....	77	.....
	Vulnus laceratum	4	.....	1	.....	2	.....	2	.....	1	.....	.....	.....	10	.....
	Vulnus punctum	11	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	13	.....
	Vulnus sclopeticum	1	.....	.....	.....	3	.....	1	1	.....	.....	.....	.....	5	1
Miscellaneous	Debilitas	55	.....	17	.....	60	.....	7	.....	.....	.....	2	.....	141	.....
	Ebrietas	33	1	9	.....	16	.....	8	.....	4	.....	1	.....	71	1
	Hæmorrhois	7	.....	1	.....	.....	.....	2	.....	2	.....	2	.....	14	.....
	Hernia	5	.....	1	.....	.....	.....	1	.....	.....	.....	1	.....	8	.....
	Morbi cutis	42	.....	13	.....	11	.....	10	.....	1	.....	2	.....	79	.....
	Morbi oculi	4	.....	5	.....	4	.....	7	.....	3	.....	1	.....	24	.....
	Scorbutus	1	.....	12	.....	8	.....	3	.....	.....	.....	.....	.....	24	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	181	.....	20	.....	16	.....	5	.....	1	.....	3	.....	226	.....
	Total	2,830	27	753	1	1,036	3	666	12	86	.....	31	1	5,402	44

THE TROOPS AT POSTS IN THE INTERIOR AND ON THE GULF COAST OF FLORIDA.

CLASSES OF DISEASES.		FOURTH QUARTER.												TOTAL.	
	YEARS	1854.		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	2,379.		405.		674.		28.		68.		34.		3,587.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	1												1	
	Febris continua communis	4	1	1		4								9	1
	Febris inter. quotidiana	849		30		342		2		8		1		1,232	
	Febris intermittens tertiana	455		72		228		2		1				758	
	Febris intermittens quartana	41												11	
	Febris remittens	100	2	105		21	2	1	1					227	5
	Febris typhus et typhoides	2	1			1								3	1
	Febris typhus icterodes	12	9											12	9
	Erysipelas	2												2	
Eruptive fevers	Rubeola														
	Scarlatina														
	Variola														
	Varioloides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	252	1	52		154		2		2		1		463	1
	Dysenteria acuta	122	1	36		17		1		1				177	1
	Dysenteria chronica	5		1						1				7	
	Enteritis	1												1	
	Hepatitis acuta	3												3	
	Hepatitis chronica	1				1				1				3	
	Obstipatio	71		12		38				1				122	
	All other diseases	52		9		8		1		1				71	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	16								4		1		21	
	Catarrhus	51		194		56		2		1		2		306	
	Phthisis pulmonalis	3	1			1	1	1				4		9	2
	Pleuritis	7												7	
	Pneumonia	1				1								2	
	All other diseases	5		1		1						1		8	
Diseases of the brain and nervous system.	Cephalalgia	12		1		1						1		15	
	Delirium tremens	14	1	1				4		7		3		29	1
	Epilepsia	4		3										7	
	Neuralgia	5	1			3								8	1
	All other diseases		2	1	1	2								3	3
Diseases of the urinary and genital organs.	Gonorrhœa	18		3		3		1						25	
	Stricture urethræ					2								2	
	Syphilis primitiva	6				5								11	
	Syphilis consecutiva	4				6				2				12	
	All other diseases	7				4								11	
Diseases of the serous and exhalent vessels.	Ascites	3	1											3	1
	All other diseases	3												3	
Diseases of the fibrous and muscular structures.	Pemio														
	Podagra														
	Rheumatismus	19		15		18				1		1		54	
Abscesses and ulcers	Fistula	1												1	
	Phlegmon et abscessus	95		55		13				1		4		168	
	Ulcus	18		2		5		2						27	
Wounds and injuries	Ambustio	5				1								6	
	Amputatio	1												1	
	Contusio	55		22		19	1			1				97	1
	Fractura	2				1								3	
	Luxatio	4												4	
	Punctio	1				2								3	
	Sub luxatio	22		12		9				1				44	
	Vulnus incisum	43		4		7				1		2		57	
	Vulnus laceratum	7		2		1				3		2		15	
	Vulnus punctum	3												3	
	Vulnus sclopeticum	1		3		4								8	
Miscellaneous	Debilitas	73		9		28		1		1				112	
	Ebrietas	29				2		3		5		6		36	
	Hemorrhois	9		2		1				2				14	
	Hernia	3		1		1								5	
	Morbi cutis	2		2		7		1						12	
	Morbi oculi	15		2		4								22	
	Scorbutus					3								3	
	All other diseases	120	1	13		41				3		4		181	1
	Total	2,685	22	666	1	1,066	4	24	1	49		33		4,525	28

TEXAS.

SOUTHERN FRONTIER.

The military stations on the Southern Frontier of Texas are at present located on the north bank of the Rio Grande, where that stream forms the boundary between the United States and Mexico. The posts, enumerated in their order, ascending the river, are Fort Brown, Ringgold Barracks, Fort McIntosh, and Fort Duncan. In addition to these, two posts have been occupied on the Nueces river, Forts Merrill and Ewell; and one at Corpus Christi, at the head of Corpus Christi bay.

The medical topography and diseases of all these posts have been described in the report of 1856, but additional information respecting Fort Duncan will be found in the following sanitary reports:

SANITARY REPORTS—FORT DUNCAN.

Assistant Surgeon Albert J. Myer: June, 1856.

Fort Duncan is situated upon what appears to have been once the bank of the Rio Grande, but is now an elevated plain, extending north and south parallel to the course of the river. It is bounded towards the east, at a distance of half a mile from the post, by a high bluff, and terminates on its western or river side by a precipitous fall of about thirty feet to the level of a plain below, which is about half a mile in breadth, and constitutes the "river bottom." The abrupt face of the plain on which Fort Duncan stands, may yet, perhaps, be properly regarded as the river's bank, from the fact that, in seasons of extraordinary rains, it is washed by the swollen waters of the Rio Grande, which overflow their channel and the lower plain. The soil is sandy. The growth is of scattered mesquite, (a variety of the acacia,) and a tangled mass of thorny bushes known here as "chaparral." There appear to be no local causes of disease, and the usual exemption of the command stationed here from malarial or endemic disorders substantiates the supposition that none exist. The prominent causes of the diseases from which the men suffer, aside from those originating in the exposures incident to the life of a soldier, can, in general, be readily traced to the uncomfortable quarters in which the men are housed, and the insufficient food with which they are supplied: insufficient, not in quantity, but by the want of those ingredients necessary to sustain health where troops are for months without vegetable diet, under circumstances of greater deprivation and more certainly conducive to scurvy than can ordinarily exist on board of a vessel at sea. Until a change in the constituents of the ration, or the regular issue of antiscorbutics is decided upon, this want must exist everywhere on this frontier. The troops are badly housed. With the exception of one company—C, First Artillery, who, despairing of obtaining quarters from government, have, after eighteen months' life in tents, in garrison, erected quarters at their own expense—the men are living in huts, leaky and open, with grass roofs, sides of poles plastered with mud, and mud floors. The shelter is not sufficient for men in garrison in this climate; by these exposures health is sacrificed without apparent necessity. The hospital is of stone, and as a main building for a hospital is good; but it has, at present, no ceiling, no piazza, and no outbuildings. These necessary additions have been requested, the recommendations approved by the commanding officer, and forwarded for the action of the Departments at Washington.

For the quarter ending June 30, 1856, the troops have been exposed to but few causes of disease. The rapid variations of temperature, common in the winter months, have given place to the milder weather of spring; and the early rains, never here so excessive as to be unpleasant or instrumental in originating disease, have brought forward the few edible plants valuable at this time as preventives of scurvy. The average temperature has been 77.08°, 81.42°, 88.23°, for April, May, and June, respectively. The total of rain, 5.42 inches. The issues of anti-scorbutics—which, since January last, have been recommended and made monthly—have been continued with noticeable benefit to the condition of the men, and improvement in the character of the diseases treated. There have been, since these issues were commenced, no cases of typhoid fever, nor has any disease assumed a typhoid type. The cases of intermittent fever noted in the accompanying quarterly report, have occurred almost entirely in companies B and F, regiment Mounted Rifles, which have recently arrived at this post from malarial districts, or among those men who have been exposed while absent on detached service. They are not severe, yield readily to treatment, and the periodic tendency appears to gradually exhaust itself. The cases of scorbutus are found only in the companies before mentioned. The diseases of the digestive organs have been slight, induced only by careless exposure or imprudent diet, and are easily treated. The health of the command has been good; of an aggregate of 1,005 men, there have been 344 cases treated, but in making deductions from this fact, it ought to be remembered that every man excused from duty for a single day for any trivial injury or illness is reported sick.

FORT DUNCAN, TEXAS,
June, 1857.

The health of this command has been so uniformly good that no especial report of its condition was considered necessary at the close of the last quarter. Partially at their own expense and by their own labor, the companies have constructed quarters of stone and adobe, with thatched roofs and earthen floors, but roomy and comfortable.

The bunks are constructed of such fragments of wood as the men can collect and rudely put together. They obviate, however, the necessity of sleeping upon the ground.

The improvements upon the hospital, applied for soon after my arrival, have been carried on, after some delay, agreeably to the plans of my request.

The building is now surrounded by a piazza fifteen feet broad, neatly floored at a height of three feet from the ground, and forms by its roof the main roof of the hospital.

The length of sheltered promenade thus afforded convalescents exceeds three hundred feet.

The wards previously open to the roof are ceiled; and, as lime could not be used, this ceiling is of inch-plank, tongued and grooved.

Arrangements have been made to allow of the freest ventilation.

The advantages in point of coolness, quiet, and comfort gained by these additions can be readily conceived.

The kitchen and mess-room, a building of stone to contain two rooms eighteen feet square, suitably fitted, is in process of erection. It is immediately in the rear of the hospital, and conveniently accessible.

The construction of the "bath house," a building of a single sky-lighted room, has been ordered, and will be undertaken at the earliest opportunity. It is contemplated to use this building as a dead house and for *post mortem* examinations, when there may be that necessity. The remaining buildings necessary to a hospital are constructed. When all shall have been completed, there will be within the inclosure a hospital superior to any other in the department of Texas.

The multifarious reports, applications, and appeals required to secure the erection of these works afford an amusing commentary upon the difficulties to which medical officers are subjected in the prosecution of their plans. The ultimate success alone encourages the perseverance, and

demonstrates the possibility of finally securing appropriate shelter and accommodation for the sick. Much is due in the present instance to the prompt action of the medical director, Surgeon McCormick, at department headquarters.

Longer experience has confirmed my opinion, expressed in a previous report, that there are at this post no local causes of disease.

There seems to be an absolute exemption from diseases of malarial origin, and cases originating elsewhere are benefited by a residence at this place.

Much attention has been paid to the diet of the troops, and requisitions for antiscorbutics for the whole command have been made by the medical officer each month whenever the least tendency to scorbutus occurred. There has been no case of scorbutus contracted at the post, and the typhoid types of disease, so constantly the concomitants of the scorbutic condition, have appeared in no instance.

That the scorbutic tendency exists, is illustrated by the condition of some residents in the vicinity, who, not belonging to the command, have not enjoyed a similar regimen.

A severe form of variola has been prevailing in the Mexican town upon the opposite bank of the Rio Grande, and cases have appeared among citizens upon this side.

An examination of the command showed that most of them were protected by vaccination, and upon those not so secured that operation was at once performed.

The reports transmitted to the office of the Surgeon General exhibit the sanitary condition of the command. Two deaths have occurred within the year. One of a patient brought to the post after long suffering with chronic diarrhœa; the other in a case exhibiting the *post mortem* appearances of insolation. The symptoms in the latter case changed suddenly, while the patient was in the hospital, from slight to serious. The steward, a raw soldier just detailed under the old system, was not aware of any danger, and did not think of reporting the circumstances until the patient was *in extremis*.

Under the action of the present law, such accidents will probably not occur. The beneficial operation of the law is already perceptible. The hospital steward, proud of his position and confident of its permanency, enters zealously upon the discharge of his duties, and willingly prepares for the recitations regularly required of him. The result must be the formation of a corps of stewards well informed and competent to render most valuable service to the Army.

DISEASES.

The statistics for this region, as presented in the abstract and following tables, cover a period of eleven years, from January, 1849, to January, 1860:

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	8,791	6,252	98	711	11
Second quarter	6,952	6,229	75	896	10.7
Third quarter	6,503	6,572	71	1,010	10.9
Fourth quarter	6,993	7,192	163	1,028	23
Annual ratio	7,310	26,245	407	3,590	55.6
Exclusive of cholera		26,169	363	3,580	49.6

According to this table, the relative annual proportion of cases of sickness to the strength of the command is 3.59 to 1; and the corresponding ratio of deaths, 1 to 18, or 5.56 per cent. The proportion of deaths to the number of cases treated was 1 in 64.48, or 1.55 per cent. Exclusive of cholera, the ratio of deaths to the number of troops was 1 in 20.13, or 4.96 per cent.

FEVERS.

Quarters	First.		Second.		Third.		Fourth.		Year.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	8,791		6,952		6,503		6,993		7,310				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris congestiva	0	0	1	1	0	0	0	0	1	1	1 in	1	.....
Febris continua communis	49	1	42	0	22	0	12	1	125	2	1 in	62	17
Febris intermittens quotidiana	736	0	871	1	1,105	1	1,416	1	4,128	3	1 in	1,376	565
Febris intermittens tertiana	645	0	622	0	947	0	1,118	1	3,332	1	1 in	3,332	456
Febris intermittens quartana	5	0	19	0	10	0	8	0	42	0	0 in	42	5.7
Febris remittens	73	1	151	5	355	4	310	10	889	20	1 in	44	122
Febris typhus et typhoides	33	4	30	7	10	3	15	5	88	19	1 in	4.6	12
Febris typhus icterodes	0	0	0	0	27	7	279	80	306	87	1 in	3.5	41.8
Total	1,541	6	1,736	14	2,476	15	3,158	98	8,911	133	1 in	67	1,219

SANITARY REPORT—FORT BROWN.

Acting Assistant Surgeon A. F. Watson: November, 1858.

In the report of sick and wounded at Fort Brown, Texas, for the quarter ending September 30, 1858, no remarks were made in relation to the severe epidemic (yellow fever) then prevailing at this post. I now proceed to give an account of the disease as it came under my observation.

About the 20th of August, 1858, yellow fever of the malignant form made its appearance in the city of Brownsville, Texas; previous to which date there were some cases and deaths of yellow fever at Brazos Santiago, distant from this place about thirty miles. The fever is generally supposed to have been introduced there from New Orleans by the schooner Jonathan T. Johnson, which sailed from New Orleans on the 27th July, 1858, for Brazos Santiago. On the passage there was one death from yellow fever. Shortly after their arrival at the port of Brazos Santiago two of the crew were taken ill of yellow fever, and both died. These were the first cases known in this part of the State. After these cases there were several more amongst the residents of Brazos Santiago. It next appeared at Point Isabel, distant from Brazos Santiago about four miles, between which places there is a continual intercourse. It next appeared at the mouth of the Rio Grande, distant from Brazos Santiago about nine miles, and from Point Isabel about thirteen miles. On the 20th of August, (about four days after the appearance of yellow fever at the mouth of the Rio Grande,) the river steamboat Mentoria arrived at Brownsville from Brazos Santiago, *via* the mouth of the Rio Grande, having on board a Mexican, sick of yellow fever, who died next day. On the 22d of August the first case taken in Brownsville occurred. It was a well-marked case; a Mexican living on the levee near the steamboat landing. After this there were several more cases in the same neighborhood, where it seemed to have taken hold. About the first of September it commenced to spread all over the city. The garrison of Fort Brown, Texas, is situated adjacent to the city of Brownsville. The first case in the garrison was private William Gusman, of company L, First Artillery, a German. He reported sick at 1, P. M., the 2d of September; had been sick since

the night previous; had been in the constant habit of stopping all night near the steamboat landing. The second case occurred on the 9th, the third case on the 12th; after which date there daily reported sick two or three, until the 3d of October, when it was at its acme. It continued so until the 6th, after which date it was on the decrease until the 24th of October, since which date we have had no fresh case.

Between Fort Brown and Brazos Santiago there are several small Mexican villages or ranchos, in none of which did the fever appear until the 27th of September, when there was one case at San Martin, distant from this place about fifteen miles; after which there were several cases in that village. On the 4th of October it made its appearance at Santa Rosalia, about three miles from Brownsville, on the direct road to Brazos Santiago; and on the 7th of October it appeared at rancho Los Tomatoes, about one mile from Brownsville, and likewise on the road to Brazos Santiago.

Previous to the breaking out of yellow fever the city and fort were remarkably healthy, and in the city there had been many improvements carried on for the last two years. The fort also was, at the time, in remarkably good and clean order. There was no apparent local cause of fever here. The meteorological register did not indicate any extraordinary condition of the atmosphere. I hereto annex a condensed abstract showing the quarterly mean of barometer, thermometer, and hygrometer in the summer and autumn quarters for the years 1856, 1857, and 1858. It also shows the total number of days fair and cloudy, and the quantity of rain fallen in each quarter; also the maximum and minimum temperature of each year.

YEARS.	BAROMETER. Quarterly mean.		THERMOMETER. Quarterly mean.		HYGROMETER. Quarterly mean.		WEATHER. Number of days. Summer.		WEATHER. Number of days. Autumn.		RAIN. Quantity, in inches.		TEMPERATURE.	
	Summer.	Autumn.	Summer.	Autumn.	Summer.	Autumn.	Fair.	Cloudy.	Fair.	Cloudy.	Summer.	Autumn.	Max.	Min.
1856.. .	30.02	30.05	82.25	79.88	77.39	75.37	48½	42½	50½	41½	7.20	9.58	96°	28°
1857.....	30.03	30.07	80.31	80.51	75.33	74.52	63½	25½	54½	34½	3.75	9.95	96	29
1858 ...	30.02	30.05	82.45	80.91	75.24	75.41	56½	33½	52°	39½	6.85	10.97	98	37

It has been stated that when well-marked black vomit is presented in a case of yellow fever, the chance of recovery is but little better than one in a hundred. (Vide Fenner's report of yellow fever for 1853.) The number of well-marked cases of black vomit in this garrison were fifty-eight; of these, thirty-eight died and twenty recovered, which is about thirty-four and a half per cent. recoveries.

The command at this post at the breaking out of the yellow fever was: officers, four; enlisted men, eighty-five; there were also in the garrison of women, children, and servants, thirty-one, making a total of one hundred and twenty, (120.) The command comprised company L, First Artillery, all the men of which were unacclimated. The total number of cases and deaths in the garrison during the epidemic were as follows, viz: officers, cases two, deaths one; enlisted men, cases seventy-two, deaths thirty-six; women, cases ten, deaths three; children, cases eight, deaths one; total cases, ninety-two; deaths, forty-one. From the first appearance of the disease a general panic prevailed throughout the command, and men of temperate habits resorted to liquor to drive away their fear. And these were prominent causes of mortality, many of them dying with well-marked symptoms of *delirium tremens*.

It is, I believe, generally conceded that the yellow fever of this year has been more malignant and unmanageable than any ever before seen. Out of ninety-two cases treated, fifty-eight had black vomit, being over sixty-three per cent. Suppression of urine was also frequent, and proved

invariably, a fatal symptom. Another feature of this epidemic which is worthy of notice is that there was no tendency to a relapse; of all the cases treated there was but one relapse.

The general treatment may be summed up in a few words: at the first appearance of the fever, a *hot* and strong mustard foot bath, followed immediately by fifteen to twenty-five grains of calomel; four hours afterwards, two ounces of castor-oil; sinapisms to the hands and feet; cold applications to the head; repeat the foot bath every two or three hours, as it may be necessary. At the second stage, calomel every three hours, three grains, combined with quinine or Dover's powder, according to the exigency of the case; lemonade, orange-leaf tea, gum water, or flaxseed tea to be given frequently, cold or hot, according to the condition of the stomach. Sponging the body and limbs with warm brandy and lemon juice proved beneficial; also, mild enemata; general bleeding was inadmissable, and local bleeding proved of but little, if any, benefit. In cases of debility, I used carbonate of ammonia as a stimulant with considerable success; also, brandy and water. The state of the stomach throughout the epidemic was very irritable, and the best remedies consisted of lime water, hot coffee, or charcoal water, the latter preferred; also, mild emetics, such as infusions of chamomile, &c., proved of great benefit.

The condition of the atmosphere was highly infectious, and strangers from distant places, mail-carriers and others, who came and remained but a day or two, were, almost without exception, taken with the fever, and the majority of them died, many shortly after their departure. A large number of the cases were afflicted with very malignant abscesses in various parts of the body, which, when opened, exhibited no healthy pus, but only grumous blood resembling black vomit.

The American and European part of the population which had resided here since 1853 were entirely exempt from the disease, but the Mexicans born upon the soil were as liable to the fever as strangers, and with equally as fatal results. It is also worthy of remark that, during the prevalence of the epidemic, large quantities of dead fish were thrown up on the gulf shore adjacent to Brazos Santiago to such an extent that the stench was perceptible for many miles.

The change of color before death was, this year, very remarkable; some were perfectly yellow, and others almost black. There was a peculiar congestive state of the bowels. Injections brought away nothing but scybala in large quantities. There were sudden conjestions which attacked the head, stomach, and kidneys.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases to 1,000 of mean strength.
Strength	8,791		6,952		6,503		6,993		7,310				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	60	35	16	9	0	0	0	0	76	44	1 in	1.7	.....
Diarrhœa	888	16	769	19	682	8	722	15	3,061	58	1 in	53	418
Dysenteria acuta	218	2	234	3	242	3	313	4	1,007	12	1 in	84	138
Dysenteria chronica	13	4	18	4	16	4	13	4	60	16	1 in	3.8	8.2
Enteritis	4	0	8	0	3	0	8	2	23	2	1 in	12	3.1
Hepatitis acuta	1	0	8	1	4	1	2	0	15	2	1 in	7	2
Hepatitis chronica	0	0	1	0	0	0	1	0	2	0	0 in	2	0.2
Obstipatio	156	0	234	0	202	0	157	0	749	0	0 in	749	102.4
All other diseases of this class	188	3	230	6	181	4	153	2	752	15	1 in	50	102.8
Total	1,528	60	1,518	42	1,330	20	1,369	27	5,745	149	1 in	38	786
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	5,669	105	1 in	54	775

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	8,791		6,952		6,503		6,993		7,310				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	102	1	41	1	37	0	72	2	252	4	1 in	63	34.5
Catarrhus	543	0	217	0	179	0	439	0	1,378	0	0 in	1,378	188
Phthisis pulmonalis	8	5	3	1	9	3	4	7	24	16	1 in	1.5	3.3
Pleuritis	43	1	38	1	17	1	22	0	120	3	1 in	40	16.4
Pneumonia	19	3	12	1	4	1	13	4	48	9	1 in	5	6.5
All other diseases of this class	12	0	11	0	14	0	11	0	48	0	0 in	48	6.5
Total	727	10	322	4	260	5	561	13	1,870	32	1 in	58	255
Rheumatismus	302	2	256	0	175	1	222	0	955	3	1 in	318	13

WESTERN FRONTIER.

The military posts established for the protection of the western frontier of Texas were originally established, eleven or twelve years since, on a line running north and east from Fort Duncan, in latitude 28° 42′, longitude 100° 30′, to the northern limits of the State; Fort Worth, the most northern and eastern station, being in latitude 32° 40′, longitude 97° 25′. It was soon found necessary to abandon most of those positions, and advance the line further west; Fort Quitman, the most western station in Texas now occupied, being in longitude 105°.

The posts on this frontier that have been occupied during the last five years are Forts Belknap, Chadbourne, McKavett, Mason, Inge, Clark, Lancaster, Davis, and Quitman; also, Camps Cooper, Colorado, Verde, Hudson, and Stockton. The headquarters of the department are at San Antonio.

The statistics included in this report relate also to the diseases occurring at stations on the line first established, viz: Forts Worth, Graham, Gates, Croghan, Martin Scott, Lincoln, Phantom Hill, and Terret.

For sketches of the medical topography and diseases of most of these posts, reference is made to the report of 1856.

SANITARY REPORT—CAMP COOPER.

Assistant Surgeon John J. Gaenslen: June, 1856.

Camp Cooper is situated on the north bank of the Clear Fork of the Brazos, in latitude about 33°, and longitude 99°, on a plat of about eighty acres, of an alluvial formation, which is bounded immediately on the north, northeast, and northwest by a high hill or ridge of stratified limestone, having a southern dip; on the south and southeast by the river, the banks of which here, and for some distance above and below, are about thirty feet above its bed.

The prevailing winds are from the southeast, sweeping over large tracts of dry and scantily watered country. They reach us, not as the refreshing breezes of other latitudes, but like blasts from a furnace, containing not a particle of moisture. Since the latter part of March there has been no "*dew* deposited."

The troops have performed no other duties than such as legitimately pertain to a camp. The officers and men live in tents, which afford but little protection against the intensity of the

sun's rays, and are only rendered habitable by having been elevated five or six feet, and furnished with canvass walls. The hospital accommodations are insufficient, being limited to one tent. I have on several occasions been compelled to send men in hospital to their quarters to make room for others. On the return of Colonel Lee the erection of a suitable building for hospital purposes will be recommended.

The few springs in the vicinity of the camp having failed early in May, the river water, until lately, has been used for all purposes. The river is now, however, a mere series of pools strongly impregnated with the salts of the soil, and intermixed with vegetable matter, rendering it, at this season of the year, unfit for use. A well has lately been dug affording a supply of water, but owing to the saline matter held in solution, and derived no doubt from the immense fields or beds of gypsum, &c., abounding in the vicinity, it is not a healthy beverage. The habits of the men are excellent, and as regards cleanliness and temperance are perhaps not equaled by any in the service.

On entering upon the discharge of my duties I found the command, composed mostly of recruits, just recovering from the fatigues of a long march and the severities of an unprecedented winter, unused to the bivouac or the exposures of a camp, and suffering more or less from a deficiency of the clothing necessary for the season, and supplies of food of a proper kind; an exemption from the diseases incident to the service, more particularly scurvy, was not to be expected. It was not a matter of surprise, therefore, that early in April scurvy should appear among the troops—in at least one fifth of whom the symptoms were well marked—though none but the most aggravated cases, such as were unable to perform the lightest duty, were admitted into hospital. Fortunately in the absence of such antiscorbutics as the army is usually supplied with, the remedy, free of cost, was found close by in abundance. The young and tender shoots of phytolacca and of the various species of rumex were recommended, and, when prepared, were freely eaten; one patient, unable either to walk or discern objects, on the free use of the articles mentioned, was returned for duty in four weeks. Of the twenty-two persons treated for intermittent fever, eighteen had it previous to enlistment; the others had lived in miasmatic districts, but had not had an attack of the fever until they reached Camp Cooper. It will be seen on referring to my report that thirty cases of acute dysentery were treated during June. To the excessively *hot* days and cool nights, bad water, and at one time bad bread, I attribute this disease. The milder cases yielded promptly to an injection of acetate of lead. Calomel, opium, and ipecac were employed freely and successfully in those cases of greater violence, in which extensive ulcerations were to be apprehended. Cataplasms to the abdomen seemed to afford much relief.

SANITARY REPORT—CAMP COLORADO.

Assistant Surgeon W. J. H. Whit : January, 1857.

In connection with my quarterly report of sick and wounded, ending 31st day of December, 1856, I will submit for your information a brief description and a rough sketch of the camp. I cannot give the exact position, astronomically observed, but take from the map of Texas, by De Cordova, (1856,) the measurements: longitude 22° 19′ W. from Washington, and latitude 21° 30′ N. Fort Belknap is about 150 miles N., Fort Mason 55 miles S., Fort Chadbourne 65 miles W.NW., and Austin is 130 miles S. of E.

The present location was occupied almost simultaneously with the arrival of the first squadron of cavalry in August last; and the ground being covered with a thick undergrowth of bushes, it was cleared off, and a few of the larger trees felled to give space. Then, in the mingled shades of pecan, elm, and live-oak trees, we proceeded to lay out the encampment on a straight line along the right bank of the creek, and as soon as a sufficient number of posts could be obtained, they were sunk upright in the ground, close together, around a line corresponding in circumference with the base of the tent, which is of the bell pattern, and the tents

pitched upon them, leaving openings in the work for doors. By this arrangement each tent roofs an elliptical room, eighteen by twelve feet in length and breadth, measured across the center, and six feet high around the posts. The hospital is of the ordinary hospital tent, raised on a close picket work four feet high, and the comfort of the men is further increased by using the fireplace and chimney built on one side.

This creek, commonly called Muke Water, the word being a corruption of murk water, heads at or very near the western point of Santa Ana's mountain, which is fifteen miles north, and following a crooked course thirty miles or more, finally empties into the Colorado river five miles south of camp. The area drained by it must be of considerable extent, as it is the principal stream between the Colorado river and Pecan bayou. At the least calculation this area is equal to thirty square miles, and over this space is a network of deep ravines that descend hastily to the main channel, consequently the water collected in them during heavy rains is quickly thrown out, causing the bordering valley to be overflowed to a great depth.

Since our stay here we have not been so unfortunate as to witness the phenomenon, and what I relate is inferred only from the height at which drift-wood is found lodged in the trees on the margin of the creek. The old Texans remark that floods of great extent occur along many of their rivers at stated periods of ten years, and, from what information I have gained by converse with them, it appears that tremendous overflows did occur at this place, on the Colorado and Guadalupe rivers, in the spring of 1843. Subsequently, however, none have been noticed, and the truth of their periodicity at such stated times would seem doubtful.

In ordinary seasons, water does not occupy the bed of the creek throughout its entire length, but sinks and rises at intervals which vary from three hundred to eight hundred yards, thus presenting to the eye a series of pools. The earth on the dry spots consists of sand, clay, and gravel, having a greater proportion of the former. The banks terminate abruptly, and at this time it is some twelve feet from the top of them to the surface of the water; the width from side to side, in a direct line, is sixty feet.

Around the immediate vicinity hills rise up north, east, and westward; those in the former direction are eighty feet high, covered with a stunted growth of bushes, and formed of limestone with organic remains; the others are much smaller, having a luxuriant growth of grass and mesquite trees on them, and formed mainly of sandstone. The intervening valley has a rich soil composed of vegetable debris mixed with clay and sand in such proportions as to appear well adapted for cultivation. Notwithstanding the peculiar adaptation for agriculture, the main inducements with settlers will be the vast field for cattle grazing in this region. Already, several persons have squatted near by with their herds, and doubtless in a short while the number will be largely increased.

The limited number of meteorological observations do not justify any generalization relative to climate. During the past summer the heat in the day-time was felt oftentimes extremely oppressive, rendered so in a great measure by the trees around camp preventing the ingress of light breezes; usually, the nights were pleasant. Very small quantities of rain have fallen either in summer or autumn; in fact, a drought extended generally throughout the State, causing much damage to the corn crops.

In reviewing the record of sick reported during the quarter, I find that fevers of a malarial type are not uncommon, and the majority of them occur in October and November.

Such a sequence might be sought for, considering the nature of existing circumstances; and, in connection with them, and the bad quality of the water, it is surprising that so few cases have presented themselves. The water used by the men for all purposes is taken from the adjacent creek, and in those months its being highly charged with vegetable matter was particularly noticed. It was so much so as to render it quite bitter and nauseous to the taste. With the prevailing malaria, this doubtless had the effect of producing the disease.

Many mild cases of the disorder occurred which were not reported, as it did not hinder the

patient from daily duty. The character of the fever was usually mild, and it was not until late in the season that a few cases became severe, and one death resulted.

Ulcers and diarrhœa form a large proportion of the aggregate number reported, and they may, with few exceptions, be traced to the intemperate use of alcoholic liquors.

In a country like this, where the sovereigns act with less restraint of law, by squatting amongst us and vending "lightning whisky," a potent cause of disease becomes as firmly fixed as the malaria, and to check its use by the men requires almost superhuman exertions.

CAMP VERDE.

The following sketch of the topography of Camp Verde is from the sanitary report of Assistant Surgeon Joseph R. Smith, for the fourth quarter, 1856:

"Camp Verde is situated upon the northern bank of Verde creek, which, running in a NE. direction, empties into the Gaudalupe river about seven miles from the post. In a direction a little to the W. of N. about twelve miles distant, is the village of Kerrsville; about fourteen miles to the NW. the village of Comfort; and about eleven miles E. of S. the city of Bandera—each of them small villages containing twenty to thirty houses. From a careful comparison of its situation, compared with those of Fort Martin Scott and San Antonio, I conclude Camp Verde to be in about latitude 30° N., and longitude 99° 10′ W., with an altitude of about 1,400 feet above the sea.

"The valley of the Verde extends in the same general direction as the stream, and is about a half mile in width, the hills on the southern bank rising within a few hundred feet of the bank of the creek to a height of from one to two hundred feet above its level. Upon a plateau in this valley, gently sloping toward the creek, and extending back about 2,000 feet to a range of hills, is situated the post. A grove of live and post oaks afford it shade and a very partial protection from winds. The high range of hills before spoken of, and one of which rises immediately opposite the post, about 200 feet from the creek, forms the divide between the valleys of the Verde and the Medina river.

"The waters of the creek are beautifully clear, its banks abounding in springs, some of which present every appearance of belonging to the ferruginous variety No analysis of these waters has yet been made. On Christmas day last, the temperature of the creek at 3, P. M., was 49°; that of the spring from which the post derives principally its drinking water, and distant from the creek 100 feet, was 58.10°.

"The bed of the creek is composed of carbonate of lime which is the prevailing geological formation of the region. The hills seeming to consist of layers of limestone, argillaceous shale, and gravel, presenting, when viewed from a distance, the appearance of extensive water-level marks. Some of the calcareous rocks, particularly where exposed on the summit of hills, exhibit remarkable lithodomous perforations, literally riddled like a sieve. The valleys generally present the appearance of valleys of denudation."

SANITARY REPORT—FORT McKAVETT.

Assistant Surgeon Andrew K. Smith: July, 1857.

In Harper's Magazine for June, 1857, there is an article, by a medical gentleman, on spiders, in which, speaking of the tarantula, he states that "the bite of this animal is not a whit more painful and dangerous than the sting of a wasp," and that the stories of the effects of its wound "are now known to be mostly fabulous." Now, every medical officer stationed in Texas could at once disprove this assertion, and I beg leave, in the present report, to give my own experience as to the results of the wound inflicted by this venomous animal.

In Texas, so prolific in annoyances, where every bush has its thorn, and every insect and reptile its sting or fang, the tarantula is regarded with a dread almost equal to that inspired by

the rattle-snake. Surely, in a country where they are and always have been numerous, there must be a reason for thus fearing them, apart from the prejudice arising from their disgusting and venomous appearance.

On the morning of the 2d of June last, Corporal Calvert, of company E, First Infantry, was admitted into hospital, having been bitten upon the instep by a tarantula while lying in his bunk. The two points of puncture from the animal's fangs were plainly visible, being about half an inch apart. The foot and leg were swelling rapidly and becoming intensely painful. The course of the lymphatics was marked by red streaks and a well-defined hardness. Towards evening the glands in the groin and upper part of the thigh were exceedingly swollen, and the front aspect of the leg was covered with an erysipelatous blush, and his pulse showed a great constitutional sympathy. The next day a slough had commenced upon the instep as large as a dollar, which separated in two or three days, leaving a healthy granulating surface.

He was confined to his bed a week, and for ten days longer was unable to wear his shoe or bear his weight upon the affected limb. His presence was then required as a witness before a court-martial at Fort Mason, and upon his return a few days after, he reported himself perfectly well. There was, however, a superficial hardness remaining in the situation of the bite.

Upon his admission I applied a poultice to the foot, and gave him a large dose of sulphate of magnesia, followed by five grain doses of quinine with ten drops of laudanum every four hours. At night, finding him slightly delirious, with a high, full pulse, I gave him fifteen grains of quinine and thirty drops of laudanum, which had a most happy effect. His pulse resumed its natural beat, the skin its natural temperature and moisture, and his mind acquired its wonted clearness. The further progress of the poison appeared to be checked, and the remainder of the treatment consisted in keeping the limb bathed in lead wash, the application of poultices to the foot, and small doses of quinine three times a day; the bowels being also kept in a soluble state.

But yesterday morning a soldier, who had been out hunting the night before, came to me, seemingly in great pain, and stated that he had been bitten or stung while asleep, upon the end of his penis. I found the organ exceedingly swollen and painful, resembling in fact a large toad stool, and several glands had already commenced enlarging in the groin.

Although from the great swelling and discoloration, I could not find the wound. I have no doubt that this was also caused by a tarantula, as since recent rains they are met with everywhere. I do not think it could have been a centipede, as this vicious animal is apt to leave more than one mark of its presence.

In this case to relieve the tension and paraphymosis, I made a deep incision behind the corona glandis, which gave him great relief, and this morning his condition is much improved. He also was given a saline cathartic, followed by quinine.

Since I have been on duty in this department, now nearly four years, I have heard of several well-authenticated cases of severe results from the tarantula bite. One instance, where a paymaster's clerk was likewise bitten upon his penis, was well known to several officers stationed upon the Lower Rio Grande. An intelligent physician in San Antonio told me of a case in his own practice, where the bite resulted in a general paralysis, from which the patient had a tedious recovery.

In the months of April and May the greater part of the command was revaccinated. There being a rumor that the small-pox was prevalent in San Antonio, I procured a vaccine crust from the medical director, and from this vaccinated several infants and small children in the garrison and vicinity, who had been previously unprotected. Having thus produced the genuine disease, I commenced by revaccinating the band, then numbering twenty-two. In all but four the virus "took," followed by a pustule closely resembling in appearance and course that produced by an original vaccination. Two of these men, Italians, having been pitted with variola in youth, had never been vaccinated, and these two both presented well-marked specimens of the regular vaccine disease, running its usual course.

Selecting the healthiest men in the band, I took the virus from their arms and revaccinated one half of company C. Here as in the other case a pustule was produced in a majority of the men. From some of these men, in the proper stage of the disease, the other half of the company was revaccinated, and the same method adopted with the remainder of the command.

It is worthy of notice that in these cases of revaccination there was a close approach to the genuine vaccine disease. Very few of the pustules aborted. On the contrary, there was the same umbilicated appearance, the large areola and constitutional disturbance, and from the time of the insertion of the virus to the separation of the crust the same period of time was noticed as in an original vaccination. These results do not agree with the statistics of revaccination which I have been able to find.

The sutler at this post, who had been inoculated when a boy, was vaccinated with lymph from one of the children's arms. In his case the resulting affection was very severe, the inflammation extending over the shoulder and back.

SANITARY REPORT—FORT CLARK.

Assistant Surgeon Basil Norris: September, 1856.

Fort Clark occupies a healthy site upon the Rio las Moras; it overlooks the surrounding country and commands a view of the Rio Grande bluffs, thirty miles to the southwest; and to the east and north, distant mounds and mountain ranges are distinctly visible. The shallow soil of the prairie supports a scanty growth of vegetation, and the cause of malaria is nowhere to be found except upon the river course.

The stream, not more than forty feet wide, takes its source about a quarter of a mile from the station, and, welling from the earth in full volume, flows in a sluggish current around the garrison from the northwest to the east and southeast, and continues to the Rio Grande without a tributary. Its banks are deeply shaded by live-oak, pecan, and elm, and many varieties of shrubs and vines make up a dense and luxuriant undergrowth.

Looking then to the theory of vegetable decomposition as the origin of miasma, we find here the cause of that class of diseases which constitutes a large proportion of the cases heretofore reported; but its effect upon the health of the command cannot be correctly inferred from our quarterly reports, which do not present a fair record of the fevers originating in this locality. Troops from other stations have joined with the sickly complexion of men long accustomed to breathe miasma, and recurring chills have been frequent among them during the first months of service at the post. Scouting parties also, predisposed by arduous duties, bring from their camps at stagnant pools and bottom lands the seeds of disease and many of the most severe attacks of ague.

The eruptive fevers have been fortunately almost unknown, (one or two cases of erysipelas excepted;) a case of variola, brought by a citizen from El Paso, was treated and cured under our care; and, although left by those who brought him to this point, in the midst of the garrison, the precautionary measures adopted proved successful in preventing its spread among the troops.

Diseases of the organs of digestion have nothing in their cause peculiar to the circumstances of the place, and are attributable to errors in diet, sudden changes of temperature, and the abuse of intoxicating liquors.

Pulmonary diseases are rare; the dry and equable climate has been beneficial to a few cases left in hospital, and at the post none have originated.

Attacks of catarrh are of short duration, and yield readily to simple remedies. Pneumonia, whenever occurring, is attended by typhoid symptoms, and great care and patient nursing are necessary to the favorable termination. It has appeared in those men whose service in the field or on escort duty has compelled them, after much hardship and privation, to sleep upon the ground, exposed to rains and northers, which, although unfrequent, sometimes overtake them with all the rigor of the coldest climate.

Cephalalgia and neuralgia, depending upon hepatic disorder and atmospheric changes, are, with few exceptions, the only diseases of the nervous system which have come under treatment. The cause of venereal disease does not exist in the vicinity of the post, and the urinary and genital organs have been remarkably exempt. Rheumatism affects principally the elbow and shoulder-joints, it is obstinate in its attacks, and yields slowly to remedies; it is usually developed in the plethoric by exposure to wet and cold. Scorbutus has from time to time made its appearance in the spongy gums and painful legs of the sick, but has been always arrested by a timely supply of vegetable food, and an abundant issue of the ordinary antiscorbutics.

To the ration with fresh beef, vegetables from the garden are supplied in sufficient quantity to flavor and improve the soup, and occasionally, during the year, purchases of onions, sweet potatoes, &c., are ordered for the whole command. The clothing used by the troops is, in my opinion, too thick and warm for the summer.

The quarters, which were heretofore only comfortable during the summer months, are made of pickets driven into the ground, and covered with rudely thatched roofs. They have been recently repaired by weather-boarding from the "portable cottages," and, with additional chimneys, will be suitable for the winter.

The water used in the garrison is drawn from the river and kept in barrels, which are cleaned and replenished every day; it is clear, slightly impregnated with lime, and is, at all seasons, cool, refreshing, and wholesome.

SANITARY REPORT—CAMP HUDSON.

Assistant Surgeon Richard D. Lynde: July, 1859.

Camp Hudson is situated at the second crossing of the San Antonio and El Paso road over the San Pedro or Devil's river, and is about two hundred miles in a west-northwesterly direction from the former place. The post is located on a small triangular plateau, elevated some thirty feet above the river bottom, and surrounded on all sides by hills, between which four cañons open upon it. These hills are composed of limestone rock, mixed with flint, that crops out in every direction, the surface having very little soil except on the immediate borders of the river. Vegetation is consequently very sparse, and of the more hardy varieties, being composed of different species of cactus, the bear grass, the mezquite, and a few other small hardy bushes, most of which are thorny, and such grass as can find soil enough to root itself between the rocks and loose broken stones covering the surface. This last is so small in quantity, and so often burned up for the want of sufficient moisture, as to make it difficult to find pasturage for the animals pertaining to the post.

Along the river, however, may be found small groves of pecan, live-oak, and sycamore, and, in some of the cañons, dwarf cedar. The wild plum and muscadine grape also abound in the river bottom.

Game is not very abundant. Deer, turkeys, hares, quails, and the wild hog or peccary compose the principal varieties. The river abounds in fish: striped bass, catfish, suckers, sunfish, and a variety I have never seen before, called here, by the common name, goggle-eyed perch. It resembles the sunfish in shape, except that it has a hump upon its shoulder, directly behind the head, and its colors are more sober than those of the sunfish. It sometimes attains the weight of two pounds.

The elevation of this post must be considerable, but it has never been ascertained by observation, nor have the longitude and latitude.

The atmosphere is very dry, and the location healthy, being sufficiently elevated to escape any malaria that might arise from the neighborhood of the river. The highest record of the thermometer at the 2, P. M., observation during the quarter, was on the 17th of June, when it stood at 101°, with the hygrometer at 72°, making a difference of 29°. There have been days

since when, the thermometer not standing above 98°, the heat was far more oppressive, owing to the greater amount of moisture in the air.

The quarters are very comfortable, though for the men they are somewhat cramped. Being built of clay, laid up in the moist state in successive layers, and roofed with shingles, they make very durable houses in this dry climate. The clothing is the usual allowance of the soldier; the diet the ordinary commissary rations, with the addition of the desiccated vegetables twice a week in lieu of rice and beans. The beef is very good. There are no gardens at the post. The duties of the men of the command are the usual garrison duties and escorting trains on the road.

The health of the post has been very good during the quarter, most of the cases being very mild. Diarrhœa and derangement of the liver have occurred during each month. Scurvy appeared among the men of company F in the latter part of May and first of June, but was checked by the daily issue of desiccated vegetables for about a week, and the use of the young shoots of the poke weed (*Phytolacca decandra*) as greens, the plant having been found in the neighborhood of the post. This company and company L had come immediately from the Lower Rio Grande, where fresh vegetables were to be had easily; the other companies have been in the upper country, without any other vegetables than those issued by the commissary department. Yet there was no scurvy except in company F, although it would have been more natural to have looked for it among the men of the other companies. Tape worm (*Taenia solium*) seems to be frequent in this country. Besides the four or five cases reported, I have had three or four not contained in the report, all of which I have treated with oleum terebinthinae; but although large quantities of the worm have been expelled in every case, with great relief to the patients, I am not satisfied that the head was passed in any one instance, on account of the difficulty in getting the patients to preserve the portions passed.

SANITARY REPORT—FORT LANCASTER.

Assistant Surgeon George Taylor: July 1856.

This post is situated on Live Oak creek, or rather about half a mile from it. The ground on which it is located has a moderate and regular slope. The average height of the post above the bed of the creek is about twenty-five feet. The river Pecos lies to the southwest, and is distant about one mile at its nearest point. The Pecos is a very rapid stream; its average width is about sixty feet; its banks are almost vertical, and in many places eight or ten feet high; its water is very turbid, being of a deep chocolate color.

The general direction of Live Oak creek is north and south. The water of the creek is perfectly limpid, but is much impregnated with lime. When the camp was first located here in August, 1855, the creek was a fine running stream, with quite a large volume of water. Now it is dry for much the greater part of its length. Every few hundred feet a large hole still contains water, but these holes are daily becoming fewer and fewer. During the last few days there has been a fall of rain, which has checked the drying up of the creek; but unless there shall be more rain within a short time, it is probable it will be entirely dry in the neighborhood of the post. The head of the creek is about seven miles to the north.

The post is surrounded in every direction by large hills, between six and seven hundred feet in height. The hills are composed principally of limestone. The soil upon them is slight in extent; a dwarfish species of the maguey grows upon them, which, in the absence of all other antiscorbutics, has been found of immense benefit. It is prepared here by cutting the plant into small pieces and boiling for several hours. This decoction is administered *ad libitum*. Its effects are prompt and decided.

The climate is mild and pleasant; it rains but seldom. There is almost always a strong breeze prevailing, which blows from the north in winter, and from the south in summer. The

principal diseases which have occurred among the command are scorbutus, malarious fever, and diarrhœa. The scorbutus has been slight in all save a few cases, and has yielded to the use of the maguey. The malarious fevers have been few in number, and but slight, yielding readily to ordinary treatment. The diarrhœa has not been more prevelant than it usually is in the Atlantic cities. The health of the troops generally has been satisfactory. The troops during the quarter have been principally occupied in drilling. Several parties have been sent on escort duty. The barracks are the Turnley portable barracks. They are sufficiently roomy, but are made of such light material that they can scarcely resist the violence of the strong winds which frequently arise. They have been braced and propped, so that they now appear to be safe and comfortable. The hospital was built so as to acommodate the sick of a small command. Should it be determined to locate this post permanently, or for a few years, a larger building will be erected.

The diet of the men is deficient in antiscorbutics. At one time a few barrels of potatoes and onions were issued to them; but for several months past they have been almost entirely without vegetables. The gardens which have been made have, to a great extent, failed from want of rain. The water, which is taken from Live Oak creek, is wholesome.

The clothing of the men is abundant and comfortable. Their general habits as to cleanliness, temperance, &c., with a few exceptions, are good. * * * * *

DISEASES.

The statistics given in the abstracts and tables for the Western Frontier of Texas cover a period of eleven years, from January, 1849, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	13,679	8,661	82	633	6
Second quarter	13,785	10,226	110	741	8
Third quarter	12,668	11,535	41	910	3.2
Fourth quarter	12,601	10,242	199	812	15.7
Annual ratio	13,183	40,664	432	3,084	32.7
Exclusive of cholera		40,384	259	3,063	19.6

The preceding table, compiled from the general abstract for this region, shows that the relative proportion of cases of disease to the number of officers and enlisted men is 3.08 to 1; and that the corresponding ratio of deaths is 1 in 30.51, or 3.27 per cent. The proportion of deaths to cases treated is 1 in 94.13, or 1.06 per cent. Exclusive of cholera, the proportion of deaths to the mean strength of the forces was 1 to 50.90, or 1.96 per cent., and to cases of sickness, 1 in 156, or 0.64 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	13,679		13,785		12,668		12,601		13,183				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris congestiva	2	0	2	1	0	0	0	0	4	1	1 in	4	0.3
Febris continua communis	7	0	36	3	116	0	39	0	198	3	1 in	66	15
Febris intermittens quotidiana	729	0	1,081	0	1,769	1	1,538	0	5,117	1	1 in	5,117	388
Febris intermittens tertiana	683	0	1,125	0	1,635	0	1,490	0	4,933	0	0 in	4,933	374
Febris intermittens quartana	66	0	89	0	40	0	83	1	278	1	1 in	278	21
Febris remittens	68	2	163	2	412	1	174	1	817	6	1 in	135	62
Febris typhus et typhoides	8	0	7	2	7	1	17	5	39	8	1 in	5	2.9
Febris typhus icterodes	0	0	0	0	0	0	1	0	1	0	0 in	1	.....
Total	1,563	2	2,503	8	3,979	3	3,342	7	11,387	20	1 in	569	863

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	13,679		13,785		12,668		12,601		13,183				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	5	84	35	0	0	196	133	280	173	1 in	1.6	.....
Diarrhœa	855	15	1,157	13	1,091	4	1,013	5	4,116	37	1 in	111	312
Dysenteria acuta	381	7	418	3	499	3	453	5	1,751	18	1 in	97	133
Dysenteria chronica	82	8	36	2	29	1	64	4	211	15	1 in	14	16
Enteritis	10	1	6	1	11	2	13	2	40	6	1 in	6.6	3
Hepatitis acuta	17	0	12	0	14	1	9	0	52	1	1 in	52	3.9
Hepatitis chronica	11	1	9	0	9	0	7	1	36	2	1 in	18	2.7
Obstipatio	255	0	504	0	432	0	258	0	1,449	0	0 in	1,449	110
All other diseases of this class	266	3	374	4	373	2	222	3	1,235	12	1 in	103	93
Total	1,877	40	2,600	58	2,458	13	2,235	153	9,170	264	1 in	34.7	695
Exclusive of cholera									8,890	91	1 in	97.7	674

Asiatic cholera prevailed among a portion of the troops in Texas in the fourth quarter of 1848 and in the second quarter of 1849. An account of the disease and its treatment was given in the report of 1856. The disease has not appeared among the troops in Texas since 1849.

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	13,679		13,785		12,668		12,601		13,183			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	149	0	82	0	66	0	102	0	399	0	0 in 399	30
Catarrhus	765	0	339	0	270	0	637	0	2,011	0	0 in 2,011	152
Phthisis pulmonalis	13	7	13	5	9	2	13	8	48	22	1 in 2.2	3.6
Pleuritis	37	0	19	0	35	0	39	0	130	0	0 in 130	9.8
Pneumonia	49	4	22	3	13	2	31	1	115	10	1 in 11.5	8.7
All other diseases of this class	33	0	30	2	34	0	23	4	120	6	1 in 20	9.1
Total	1,046	11	505	10	427	4	845	13	2,823	38	1 in 74.3	214
Rheumatismus	459	1	409	3	326	0	387	1	1,581	5	1 in 316	120

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN

TEXAS.

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	5,179.		1,551.		965.		442.		417.		237.		8,791.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva											1	1	49	1
	Febris continua communis	38		9		1								736	
	Febris inter. quotidiana	239		295		125		22		6		9		645	
	Febris intermittens tertiana	296		175		159		10		2		3		9	
	Febris intermittens quartana	2		3										73	1
	Febris remittens	46	1	8		19								33	4
	Febris typhus et typhoides	33	4												
	Febris typhus perniciosa														
Eruptive fevers	Erysipelas														
	Rubeola														
	Scarlatina														
	Variola	1								1				2	
	Varicella	1								1				2	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	60	35											60	35
	Diarrhœa	765	11	194	3	86	2	24		15		2		486	16
	Dysenteria acuta	172	2	34		10				1		1		218	2
	Dysenteria chronica	11	3			2	1							13	4
	Enteritis	1												4	
	Hepatitis acuta	1												1	
	Hepatitis chronica														
	Obstipatio	88		48		9		4		4		3		156	
	All other diseases	123	2	37		10	1	7		3		8		188	3
Diseases of the respiratory system.	Bronchitis, acuta et chronica	54		28	1	18				2				102	1
	Catarrhus	312		130		74		9		11		7		543	
	Phthisis pulmonalis	6	3			1	1			1				8	5
	Pleuritis	26		9	1	2		3				3		43	1
	Pneumonia	14	2	2			1	1		1		1		19	3
	All other diseases	9		1		1				1				12	
Diseases of the brain and nervous system	Cephalalgia	36		1		12		2						48	
	Delirium tremens	16		5		3	1			2	1			26	2
	Epilepsia	6				1								7	
	Neuralgia	8		16		1								25	
	All other diseases	10	1	4	1			2				2		18	5
Diseases of the urinary and genital organs.	Gonorrhœa	33		9		8		4		6				55	
	Structura urethræ	1												1	
	Syphilis primitiva	16		3		4						1		26	
	Syphilis consecutiva	12				2				1				15	
	All other diseases	11		2		1		3		4				21	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases	2												2	
Diseases of the fibrous and muscular structures.	Pemio														
	Podagra														
	Rheumatismus	211	2	52		22		3		11		3		302	2
Abscesses and ulcers	Fistula	1												1	
	Phlegmon et abscessus	176		67		19		1		14		3		280	
	Ulcus	103		19		12		7				3		144	
Wounds and injuries	Ambustio	18		7		3						1		29	
	Amputatio	3		1										4	
	Contusio	214	1	63		44		18		23		3		365	1
	Fractura	17		1		3		2		1				24	
	Luxatio	7		2						1				10	
	Punctio	2												2	
	Subluxatio	61		19		14		10		6		4		114	
	Vulnus morsum	80	1	22		15		6		7				90	1
	Vulnus laceratum	45	1	14		2		6		5		2		74	1
	Vulnus punctum	24	1	9		4				2		1		40	1
	Vulnus sclopeticum	10	2	4	1	4				1		2	1	21	4
Miscellaneous	Debilitas	12		12		13		1		1		1		40	
	Ebrietas	42		15	1	8		6		7		1		79	1
	Hæmorrhois	20		4		3						1		28	
	Hernia	4				1								5	
	Morbi cutis	19		6		1				1		2		29	
	Morbi oculi	60		20		20		2		1		2		105	
	Scorbutus	84		40		41		1						166	
	All other diseases	152	2	38	1	33	1	13		13		7		256	4
	Total	3,578	78	1,433	9	841	8	167		156	1	77	2	6,252	98

AMONG THE TROOPS AT POSTS IN TEXAS—SOUTHERN FRONTIER.

SECOND QUARTER.

CLASSES OF DISEASES.	Years	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	4,031.		956.		1,145.		374.		342.		104.		6,952.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	.	....	...	....	1	1	....	.....	.....	.....	. .	...	1	1
	Febris continua communis	25	....	14	....	1	....	.....	.....	....	.....	2	....	42	.....
	Febris inter. quotidiana	303	....	165	....	368	1	26	....	7	....	2	....	871	1
	Febris intermittens tertiana	346	. ..	74	....	183	....	7	....	12	..	. .	...	622	.....
	Febris intermittens quartiana	18	..	1	....	....	....	....	...	....	.. .	....	....	19	.....
	Febris remittens	128	2	4	1	12	1	1	1	3	....	.....	.....	151	5
	Febris typhus et typhoides	28	4	1	.....	1	....	....	....	....	.....	.....	....	30	4
	Febris typhus ictericides	....	....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	7	....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	8	.....
	Rubeola	.. ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	..	.....
	Scarlatina	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	....	....	... .	.....	.....	....	.....	.....	.....	.....	.....	.. ..	....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	16	9	....	.....	.....	.....	.....	.. ..	.....	....	.....	. .	16	9
	Diarrhœa	133	12	140	5	164	2	16	.....	15	....	1	.....	769	19
	Dysenteria acuta	191	2	20	1	11	.....	.....	.....	7	.....	2	.....	231	3
	Dysenteria chronica	16	4	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	18	4
	Enteritis	2	.. ...	1	.....	3	.....	.....	.....	2	.....	.....	.....	8	.....
	Hepatitis acuta	8	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	1
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	120	....	60	.....	39	.....	6	.....	4	.....	5	.....	234	.....
	All other diseases	120	2	53	4	40	.....	9	.....	6	.....	2	.....	230	6
Diseases of the respiratory system.	Bronchitis, acuta et chronica	26	1	2	.....	13	.....	.....	.....	.....	.....	.....	.....	41	1
	Catarrhus	104	.....	52	.....	35	.....	13	.....	8	.....	5	.....	217	.....
	Phthisis pulmonalis	2	.....	.....	.....	.....	1	1	.....	.....	... .	.....	.....	3	1
	Pleuritis	22	1	10	.....	3	.....	2	.....	1	.....	.....	.....	38	1
	Pneumonia	11	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	1
	All other diseases	7	....	1	.....	2	.....	.....	.....	1	.....	.....	.....	11	.....
Diseases of the brain and nervous system.	Cephalalgia	50	.....	21	.....	24	.....	1	.....	.....	.....	.....	.....	96	.....
	Delirium tremens	16	.....	4	1	4	.....	1	....	2	.....	.....	.....	27	1
	Epilepsia	6	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	.....
	Neuralgia	12	.....	2	.....	5	.....	.....	.....	.....	.....	3	.....	22	.....
	All other diseases	12	.....	5	1	1	.....	1	.....	2	.....	.....	.....	21	1
Diseases of the urinary and genital organs.	Gonorrhœa	43	.....	10	.....	12	.....	11	.....	2	.....	.....	.....	78	.....
	Strictura urethræ	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis primitiva	8	.....	2	.....	6	.....	1	.....	1	.....	.....	.....	18	.....
	Syphilis consecutiva	13	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	15	.....
	All other diseases	9	.....	4	.....	.....	.....	2	.....	4	.....	.....	.....	19	.....
Diseases of the serous and exhalent vessels.	Ascites	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Diseases of the fibrous and muscular structures.	Pernio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	157	.....	47	.....	43	.....	2	.....	2	.....	5	.....	256	.....
Abscesses and ulcers	Fistula	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Phlegmon et abscessus	188	.....	29	.....	40	.....	25	.....	24	.....	.....	.....	306	.....
	Ulcus	77	.....	20	.....	6	.....	1	.....	2	.....	.....	.....	106	.....
Wounds and injuries	Ambustio	21	.....	7	.....	1	.....	.....	.....	4	.....	.....	.....	33	.....
	Amputatio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	171	.....	35	.....	70	.....	18	.....	7	.....	1	.....	302	.....
	Fractura	5	.....	2	.....	.....	.....	1	.....	.....	.....	1	.....	9	.....
	Luxatio	4	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	5	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	48	.....	7	.....	15	.....	4	.....	11	.....	.....	.....	85	.....
	Vulnus incisum	54	2	19	.....	17	.....	4	.....	6	.....	.....	.....	100	2
	Vulnus laceratum	38	.....	12	.....	8	.....	5	.....	5	.....	1	.....	69	.....
	Vulnus punctum	19	2	8	.....	2	.....	1	.....	3	.....	.....	.....	33	2
	Vulnus sclopeticum	11	4	4	.....	5	.....	1	.....	1	.....	2	.....	24	4
Miscellaneous	Debilitas	10	.....	6	.....	31	1	3	.....	.....	.....	.....	.....	53	1
	Ebrietas	42	1	15	.....	14	.....	3	.....	8	.....	.....	.....	82	1
	Hæmorrhois	21	.....	9	.....	2	.....	1	.....	1	.....	.....	.....	35	.....
	Hernia	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Morbi cutis	28	.....	1	.....	4	.....	1	.....	2	.....	.....	.....	36	.....
	Morbi oculi	61	.....	16	.....	43	... ..	6	.....	.....	.....	2	.....	128	.....
	Scorbutus	251	.....	39	.....	55	.....	12	.....	.....	.....	.....	.....	357	.....
	All other diseases	158	1	54	.....	61	1	14	.....	22	.....	2	.....	311	2
	Total	3,482	53	978	13	1,353	8	204	1	176	.....	96	.....	6,289	76

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	3,783.		1,197.		899.		275.		349.		Abandoned.		6,503.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	15	.....	4	.....	3	.....	.....	.....	.....	.....	.....	.....	22	.....
	Febris inter. quotidiana	623	1	305	.....	165	.....	5	.....	7	.....	.....	.....	1,105	1
	Febris intermittens tertiana	554	.....	304	.....	76	.....	2	.....	11	.....	.....	.....	947	.....
	Febris intermittens quartana	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
	Febris remittens	277	2	64	2	7	.....	1	.....	6	.....	.....	.....	355	4
	Febris typhus et typhoides	7	2	2	.....	1	1	.....	.....	.....	.....	.....	.....	10	3
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	27	7	.....	.....	27	7
Eruptive fevers	Erysipelas	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa	365	6	165	2	127	.....	13	.....	18	.....	.....	.....	688	8
	Dysenteria acuta	181	2	41	1	12	.....	1	.....	7	.....	.....	.....	242	3
	Dysenteria chronica	11	4	1	.....	1	.....	.....	.....	.....	.....	.....	.....	16	4
	Enteritis	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis acuta	3	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	4	1
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio	69	.....	80	.....	41	.....	1	.....	11	.....	.....	.....	202	.....
	All other diseases	92	1	51	3	30	.....	7	.....	1	.....	.....	.....	181	4
Diseases of the respiratory system.	Bronchitis, acuta et chronica	26	.....	4	.....	5	.....	1	.....	1	.....	.....	.....	37	.....
	Catarrhus	123	.....	18	.....	23	.....	7	.....	8	.....	.....	.....	179	.....
	Phthisis pulmonalis	7	2	.....	1	.....	.....	.....	.....	2	.....	.....	.....	9	3
	Pleuritis	9	.....	5	.....	.....	.....	1	1	2	.....	.....	.....	17	1
	Pneumonia	3	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1
	All other diseases	10	.....	1	.....	1	.....	.....	.....	2	.....	.....	.....	14	.....
Diseases of the brain and nervous system.	Cephalalgia	57	.....	10	.....	16	.....	.....	.....	1	.....	.....	.....	84	.....
	Delirium tremens	12	1	5	1	4	1	.....	.....	3	2	.....	.....	24	5
	Epilepsia	6	.....	3	.....	1	.....	.....	.....	.....	.....	.....	.....	10	.....
	Neuralgia	8	.....	6	.....	.....	.....	.....	.....	3	.....	.....	.....	17	.....
	All other diseases	11	3	3	2	3	.....	2	.....	1	.....	.....	.....	20	5
Diseases of the urinary and genital organs.	Gonorrhœa	27	.....	14	.....	8	.....	14	.....	2	.....	.....	.....	65	.....
	Stricture urethræ	3	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Syphilis primitiva	8	.....	9	.....	3	.....	2	.....	.....	.....	.....	.....	22	.....
	Syphilis consecutiva	8	.....	2	.....	1	.....	.....	.....	.....	.....	.....	.....	11	.....
	All other diseases	12	.....	6	.....	6	.....	1	1	1	.....	.....	.....	26	1
Diseases of the serous and exhalent vessels.	Ascites	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....
Diseases of the fibrous and muscular structures.	Pertussis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	108	.....	34	1	28	.....	2	.....	3	.....	.....	.....	175	1
Abscesses and ulcers	Fistula	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Phlegmon et abscessus	323	.....	62	.....	71	.....	18	.....	28	.....	.....	.....	502	.....
	Ulcus	59	.....	44	.....	10	.....	6	.....	5	.....	.....	.....	124	.....
Wounds and injuries	Ambustio	17	.....	4	.....	3	.....	.....	.....	4	.....	.....	.....	28	.....
	Amputatio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	166	.....	37	.....	48	.....	12	.....	18	.....	.....	.....	281	.....
	Fractura	7	.....	3	.....	.....	.....	1	.....	.....	.....	.....	.....	11	.....
	Luxatio	5	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
	Punctio	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Sub luxatio	57	.....	18	.....	16	.....	1	.....	5	.....	.....	.....	97	.....
	Vulnus morsum	43	.....	18	2	12	.....	6	.....	11	.....	.....	.....	90	2
	Vulnus laceratum	36	.....	10	.....	14	.....	4	.....	6	.....	.....	.....	70	.....
	Vulnus punctum	18	2	8	.....	1	.....	1	.....	1	.....	.....	.....	29	2
	Vulnus sclopetorum	12	5	2	.....	.....	.....	1	.....	1	.....	.....	.....	16	5
Miscellaneous	Debilitas	29	.....	19	.....	20	.....	2	.....	4	.....	.....	.....	74	.....
	Ebrietas	32	2	16	.....	23	.....	7	.....	12	.....	.....	.....	110	2
	Hemorrhois	18	.....	2	.....	6	.....	.....	.....	.....	.....	.....	.....	26	.....
	Hernia	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Morbi cutis	38	.....	7	.....	8	.....	2	.....	3	.....	.....	.....	58	.....
	Morbi oculi	53	.....	10	.....	27	.....	2	.....	7	.....	.....	.....	99	.....
	Scorbutus	73	.....	28	1	26	.....	.....	.....	.....	.....	.....	.....	127	1
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	149	4	60	1	49	1	11	.....	14	.....	.....	.....	283	6
	Total	3,810	40	1,494	17	897	3	131	2	237	9	.....	.....	6,572	71

AMONG THE TROOPS AT POSTS IN TEXAS—SOUTHERN FRONTIER.

FOURTH QUARTER.

CLASSES OF DISEASES.	SPECIFIC DISEASES.	1849 to 1854. Cases.	Died.	1855. Cases.	Died.	1856. Cases.	Died.	1857. Cases.	Died.	1858. Cases.	Died.	1859. Cases.	Died.	TOTAL. Cases.	Died.
	YEARS														
	MEAN STRENGTH	4,806.		937.		578.		300.		318.		54.		6,993.	
Fevers	Febris continua communis	7	.....	5	1	.....	.....	.....	.....	.....	.....	.....	.....	12	1
	Febris inter. quotidiana	989	1	350	.....	55	.....	3	.....	9	.....	10	.....	1,416	1
	Febris intermittens tertiana	608	1	485	.....	17	.....	1	.....	7	.....	.....	.....	1,118	1
	Febris intermittens quartana	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....
	Febris remittens	222	6	60	2	14	.....	.....	.....	14	2	.....	.....	310	10
	Febris typhus et typhoides	14	3	.....	2	1	.....	.....	.....	.....	.....	.....	.....	15	5
	Febris typhus icterodes	230	50	.....	.....	.....	.....	.....	.....	49	30	.....	.....	279	80
Eruptive fevers	Erysipelas	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	2	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Variolondes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	535	9	73	4	81	2	10	.....	12	.....	8	.....	722	15
	Dysenteria acuta	270	3	22	1	10	.....	5	.....	6	.....	.....	.....	313	4
	Dysenteria chronica	9	3	1	1	3	.....	.....	.....	.....	.....	.....	.....	13	4
	Enteritis	6	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	8	2
	Hepatitis acuta	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	95	.....	32	.....	24	.....	.....	.....	5	.....	1	.....	157	.....
	All other diseases	84	1	40	.....	15	1	8	.....	5	.....	1	.....	153	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	51	2	8	.....	1	.....	8	.....	1	.....	3	.....	72	2
	Catarrhus	305	.....	44	.....	44	.....	37	.....	8	.....	1	.....	439	.....
	Phthisis pulmonalis	3	5	.....	.....	1	.....	.....	1	.....	1	.....	.....	4	7
	Pleuritis	16	.....	2	.....	2	.....	1	.....	1	.....	.....	.....	22	.....
	Pneumonia	10	4	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	13	4
	All other diseases	9	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	11	.....
Diseases of the brain and nervous system.	Cephalalgia	26	.....	7	.....	3	.....	2	.....	.....	.....	.....	.....	38	.....
	Delirium tremens	21	2	4	1	3	.....	1	.....	4	1	.....	.....	33	4
	Epilepsia	5	.....	1	.....	1	.....	.....	.....	.....	.....	1	.....	8	.....
	Neuralgia	6	.....	.....	.....	.....	.....	1	.....	3	.....	.....	.....	10	.....
	All other diseases	6	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	1
Diseases of the urinary and genital organs.	Gonorrhœa	38	.....	6	.....	17	.....	3	.....	3	.....	.....	.....	67	.....
	Stuctura urethræ	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Syphilis primitiva	19	.....	5	.....	6	.....	.....	.....	1	.....	1	.....	32	.....
	Syphilis consecutiva	5	.....	3	.....	1	.....	.....	.....	.....	.....	.....	.....	9	.....
	All other diseases	11	.....	2	1	3	.....	2	.....	5	.....	.....	.....	23	1
Diseases of the serous and exhalent vessels.	Ascites	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	171	.....	15	.....	20	.....	8	.....	7	.....	1	.....	222	.....
Abscesses and ulcers	Fistula	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4	.....
	Phlegmon et abscessus	185	1	14	.....	18	.....	7	.....	4	.....	2	.....	230	1
	Ulcus	93	.....	19	.....	6	.....	.....	.....	8	.....	.....	.....	126	.....
Wounds and injuries	Ambustio	22	.....	3	.....	2	.....	1	.....	3	.....	.....	.....	31	.....
	Amputatio	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Contusio	209	.....	33	.....	32	.....	7	.....	16	.....	1	.....	298	.....
	Fractura	14	1	2	.....	2	.....	.....	.....	.....	.....	.....	.....	18	1
	Luxatio	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	.....
	Punitio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Sub luxatio	58	.....	3	.....	8	.....	2	.....	4	.....	1	.....	76	.....
	Vulnus incisum	39	1	14	.....	5	.....	8	.....	8	.....	.....	.....	74	1
	Vulnus laceratum	27	.....	1	.....	8	.....	3	.....	5	.....	.....	.....	44	.....
	Vulnus punctum	25	1	3	.....	4	.....	1	.....	1	.....	.....	.....	34	1
	Vulnus sclopeticum	17	3	2	.....	.....	.....	3	2	1	.....	.....	.....	23	5
Miscellaneous	Debilitas	30	2	18	.....	12	.....	3	.....	1	.....	1	.....	65	2
	Ebrietas	48	2	23	1	8	.....	6	.....	5	.....	.....	.....	90	3
	Hæmorrhois	28	.....	6	.....	4	.....	2	.....	3	.....	1	.....	44	.....
	Hernia	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Morbi cutis	30	.....	2	.....	2	.....	1	.....	.....	.....	1	.....	36	.....
	Morbi oculi	35	.....	12	.....	12	.....	1	.....	2	.....	2	.....	64	.....
	Scorbutus	102	3	17	.....	8	.....	2	.....	1	.....	1	.....	131	3
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	155	2	27	.....	28	.....	11	.....	15	.....	2	.....	238	2
	Total	4,929	108	1,366	15	486	3	152	3	217	34	42	.....	7,192	163

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

FIRST QUARTER.

CLASSES OF DISEASES.	Years	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	6,233.		776.		2,528.		1,191.		1,695.		1,256.		13,679.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases	Died.	Cases.	Died.
Fevers	Febris congestiva	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Febris continua communis	1	.....	2	.....	.....	.....	.....	.....	4	.....	.....	.....	7	.....
	Febris inter. quotidiana	431	.....	104	.....	92	.....	51	.....	40	.....	8	.....	729	.....
	Febris intermittens tertiana	475	.....	78	.....	87	.....	16	.....	10	.....	17	.....	683	.....
	Febris intermittens quartana	43	.....	1	.....	3	.....	.....	.....	.....	.....	19	.....	66	.....
	Febris remittens	38	2	9	.....	2	.....	8	.....	9	.....	2	.....	68	2
	Febris typhus et typhoides	3	.....	.....	.....	3	.....	.....	.....	2	.....	.....	.....	8	.....
Eruptive fevers	Erysipelas	3	.....	1	.....	1	.....	.....	.....	2	.....	.....	.....	7	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
	Diarrhœa	439	10	26	.....	177	4	92	1	81	.....	40	.....	855	15
	Dysenteria acuta	138	5	18	.....	120	1	20	.....	76	1	9	.....	381	7
	Dysenteria chronica	58	3	5	.....	11	4	5	1	3	.....	.....	.....	82	8
	Enteritis	10	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	10	1
	Hepatitis acuta	12	.....	.....	.....	2	.....	2	.....	.....	.....	1	.....	17	.....
	Hepatitis chronica	10	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	11	1
	Obstipatio	100	.....	20	.....	45	.....	14	.....	53	.....	23	.....	255	.....
	All other diseases	89	3	10	.....	61	.....	34	.....	54	.....	18	.....	266	3
Diseases of the respiratory system.	Bronchitis, acuta et chronica	88	.....	6	.....	14	.....	26	.....	12	.....	3	.....	149	.....
	Catarrhus	330	.....	57	.....	176	.....	33	.....	96	.....	73	.....	765	.....
	Phthisis pulmonalis	6	4	.....	.....	2	.....	2	1	2	.....	1	2	13	7
	Pleuritis	17	.....	2	.....	12	.....	.....	.....	6	.....	.....	.....	37	.....
	Pneumonia	33	2	6	1	5	.....	1	.....	1	.....	3	1	49	4
	All other diseases	19	.....	.....	.....	5	.....	1	.....	2	.....	6	.....	33	.....
Diseases of the brain and nervous system.	Cephalalgia	13	.....	.....	.....	14	.....	7	.....	7	.....	5	.....	46	.....
	Delirium tremens	13	1	1	.....	2	.....	2	.....	7	.....	1	.....	26	1
	Epilepsia	7	.....	1	.....	1	.....	.....	.....	.....	.....	1	.....	10	.....
	Neuralgia	25	.....	.....	.....	2	.....	5	.....	2	.....	1	.....	35	.....
	All other diseases	14	1	.....	.....	4	1	4	.....	4	.....	2	.....	28	2
Diseases of the urinary and genital organs.	Gonorrhœa	22	.....	7	.....	11	.....	3	.....	10	.....	10	.....	63	.....
	Strictura urethræ	7	.....	2	.....	.....	.....	.....	.....	1	.....	.....	.....	10	.....
	Syphilis primitiva	4	.....	1	.....	6	.....	2	.....	13	.....	8	.....	34	.....
	Syphilis consecutiva	9	.....	.....	.....	3	.....	6	.....	3	.....	2	.....	23	.....
	All other diseases	20	.....	4	1	11	.....	15	.....	8	.....	5	.....	63	1
Diseases of the serous and exhalent vessels.	Ascites	3	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....	5	1
	All other diseases	17	5	.....	.....	7	.....	2	.....	1	.....	.....	.....	27	5
Diseases of the fibrous and muscular structures.	Pernio	1	.....	.....	.....	11	.....	5	.....	.....	.....	.....	.....	17	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	208	1	16	.....	93	.....	63	.....	47	.....	32	.....	459	1
Abscesses and ulcers	Fistula	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	2	.....
	Phlegmon et abscessus	224	.....	25	.....	91	.....	40	.....	66	.....	25	.....	471	.....
	Ulcus	155	.....	11	.....	27	.....	8	.....	12	.....	21	.....	234	.....
Wounds and injuries	Ambustio	26	.....	4	.....	10	.....	11	.....	2	.....	6	.....	59	.....
	Amputatio	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	240	1	25	.....	121	.....	51	.....	68	.....	38	.....	543	1
	Fractura	23	.....	2	.....	10	.....	6	.....	6	.....	2	.....	49	.....
	Luxatio	13	.....	5	.....	.....	.....	4	.....	2	.....	2	.....	26	.....
	Punitio	7	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	8	.....
	Sub luxatio	46	.....	7	.....	22	.....	20	.....	20	.....	23	.....	138	.....
	Vulnus incisum	97	.....	19	.....	31	.....	22	.....	26	.....	19	.....	214	.....
	Vulnus laceratum	44	.....	5	.....	10	.....	51	.....	31	.....	16	.....	157	.....
	Vulnus punctum	14	.....	2	.....	13	.....	3	.....	2	.....	2	.....	36	.....
	Vulnus sclopeticum	19	2	5	.....	10	1	9	1	8	.....	2	.....	53	4
Miscellaneous	Debilitas	9	.....	1	.....	25	1	4	.....	14	.....	7	.....	60	1
	Ebrietas	21	1	7	.....	7	.....	9	.....	26	.....	18	.....	88	1
	Hæmorrhois	24	.....	3	.....	8	.....	12	.....	8	.....	2	.....	57	.....
	Hernia	2	.....	.....	.....	1	.....	2	.....	3	.....	.....	.....	8	.....
	Morbi cutis	41	.....	4	.....	23	.....	7	.....	20	.....	4	.....	99	.....
	Morbi oculi	72	.....	10	.....	32	.....	21	.....	18	.....	6	.....	159	.....
	Scorbutus	223	8	46	.....	74	.....	36	.....	8	.....	2	.....	389	8
	Suicidium	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1
	All other diseases	215	1	18	.....	78	.....	60	.....	65	1	31	.....	467	2
	Total	4,229	57	577	3	1,579	13	797	4	963	2	516	3	8,661	82

AMONG THE TROOPS AT POSTS IN TEXAS—WESTERN FRONTIER.

CLASSES OF DISEASES.	SECOND QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,560.		686.		2,084.		1,367.		1,493.		1,595.		13,785.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	.....	.....	.....	.....	2	1	.....	.....	.....	.....	.....	.....	2	1
	Febris continua communis	28	2	2	1	2	.....	2	.....	1	.....	1	.....	36	3
	Febris inter. quotidiana	680	.....	68	.....	142	.....	72	.....	59	.....	60	.....	1,081	.....
	Febris intermittens tertiana	904	.....	67	.....	82	.....	14	.....	10	.....	48	.....	1,125	.....
	Febris intermittens quartana	80	.....	.....	.....	1	.....	.....	.....	.....	.....	8	.....	89	.....
	Febris remittens	62	1	6	.....	18	.....	39	.....	31	.....	7	1	163	2
	Febris typhus et typhoides	2	1	.....	.....	.....	.....	1	.....	1	.....	3	1	7	2
Eruptive fevers	Erysipelas	8	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	9	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicelodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	84	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	84	35
	Diarrhœa	731	13	21	.....	134	.....	51	.....	92	.....	128	.....	1,157	13
	Dysenteria acuta	142	1	20	.....	118	.....	45	.....	58	2	35	.....	418	3
	Dysenteria chronica	26	1	1	1	1	.....	4	.....	3	.....	1	.....	36	2
	Enteritis	3	1	.....	.....	.....	.....	2	.....	1	.....	.....	.....	6	1
	Hepatitis acuta	6	.....	.....	.....	3	.....	2	.....	.....	.....	1	.....	12	.....
	Hepatitis chronica	5	.....	.....	.....	1	.....	2	.....	.....	.....	1	.....	9	.....
	Obstipatio	243	.....	28	.....	93	.....	34	.....	64	.....	42	.....	504	.....
	All other diseases	166	2	19	1	59	.....	33	.....	57	.....	40	1	374	4
Diseases of the respiratory system.	Bronchitis, acuta et chronica	25	.....	1	.....	7	.....	17	.....	25	.....	7	.....	82	.....
	Catarrhus	175	.....	17	.....	26	.....	30	.....	35	.....	56	.....	339	.....
	Phthisis pulmonalis	6	2	1	1	5	1	.....	.....	.....	1	1	.....	13	5
	Pleuritis	9	.....	.....	.....	4	.....	1	.....	3	.....	2	.....	19	.....
	Pneumonia	14	3	1	.....	3	.....	2	.....	2	.....	.....	.....	22	3
	All other diseases	22	2	2	.....	4	.....	.....	.....	.....	.....	2	.....	30	2
Diseases of the brain and nervous system.	Cephalalgia	28	.....	3	.....	15	.....	3	.....	9	.....	2	.....	60	.....
	Delirium tremens	18	.....	2	.....	.....	.....	8	.....	4	.....	6	.....	38	.....
	Epilepsia	7	.....	3	.....	.....	.....	.....	.....	1	.....	1	.....	12	.....
	Neuralgia	26	.....	.....	.....	5	.....	1	.....	5	.....	6	.....	43	.....
	All other diseases	15	1	.....	.....	4	.....	2	.....	2	.....	7	.....	30	1
Diseases of the urinary and genital organs.	Gonorrhœa	18	.....	8	.....	16	.....	16	.....	16	.....	17	.....	91	.....
	Stuctura urethræ	10	.....	1	.....	1	.....	.....	.....	1	.....	.....	.....	13	.....
	Syphilis primitiva	7	.....	2	.....	2	.....	11	.....	7	.....	7	.....	36	.....
	Syphilis consecutiva	9	.....	2	.....	2	.....	.....	.....	3	.....	6	.....	22	.....
	All other diseases	25	.....	4	.....	13	.....	10	.....	8	.....	9	.....	69	.....
Diseases of the serous and exhalent vessels.	Ascites	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	2
	All other diseases	9	1	.....	.....	2	1	.....	.....	.....	.....	.....	.....	11	2
Diseases of the fibrous and muscular structures.	Pernio	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....
	Podagra	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	3	.....
	Rheumatismus	189	3	23	.....	74	.....	47	.....	42	.....	34	.....	409	3
Abscesses and ulcers	Fistula	27	.....	.....	.....	1	.....	.....	.....	2	.....	.....	.....	30	.....
	Phlegmon et abscessus	294	.....	13	.....	97	.....	49	.....	44	.....	60	.....	557	.....
	Ulcus	154	.....	7	.....	16	.....	4	.....	14	.....	7	.....	202	.....
Wounds and injuries	Ambustio	29	.....	2	.....	2	.....	3	.....	5	.....	3	.....	44	.....
	Amputatio	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	2	1
	Contusio	363	3	29	.....	71	.....	51	.....	56	.....	63	.....	633	3
	Fractura	18	1	1	.....	5	.....	7	.....	4	.....	6	.....	41	1
	Luxatio	14	.....	1	.....	.....	.....	1	.....	3	.....	8	.....	30	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	.....	9	.....
	Sub-luxatio	39	.....	8	.....	25	.....	15	.....	16	.....	14	.....	117	.....
	Vulnus morsum	90	1	12	.....	31	1	17	.....	12	.....	22	.....	184	2
	Vulnus laceratum	54	.....	2	.....	22	.....	24	.....	31	.....	14	.....	147	.....
	Vulnus punctum	26	2	1	.....	4	.....	4	.....	5	.....	3	.....	43	2
	Vulnus sclopeticum	23	1	6	1	10	2	4	.....	2	.....	5	.....	50	4
Miscellaneous	Debilitas	25	.....	3	.....	12	.....	9	.....	7	.....	17	.....	73	.....
	Ebrietas	42	1	7	.....	5	.....	5	.....	25	.....	27	.....	111	1
	Hæmorrhois	19	.....	1	.....	8	.....	4	.....	13	.....	3	.....	48	.....
	Hernia	11	.....	1	.....	3	.....	1	.....	2	.....	.....	.....	18	.....
	Morbi cutis	58	.....	2	.....	25	.....	12	.....	9	.....	10	.....	116	.....
	Morbi oculi	84	.....	6	.....	61	.....	44	.....	23	.....	24	.....	242	.....
	Scorbutus	142	6	26	.....	114	.....	28	.....	16	.....	72	.....	398	6
	Suicidium	1	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	2
	All other diseases	325	2	40	2	95	.....	57	.....	89	.....	64	.....	670	4
	Total	5,626	89	471	8	1,450	7	792	.....	927	3	960	3	10226	110

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,277.		662.		1,747.		1,330.		1,085.		1,567.		12,668.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	109	.....	.....	.....	1	.....	2	.....	.....	.....	4	.....	116	.....
	Febris inter. quotidiana	1,375	1	32	.....	144	.....	54	.....	108	.....	56	.....	1,769	1
	Febris intermittens tertiana	1,353	.....	32	.....	94	.....	17	.....	68	.....	71	.....	1,635	.....
	Febris intermittens quartana	29	.....	2	.....	1	.....	1	.....	7	.....	.....	.....	40	.....
	Febris remittens	314	1	6	.....	22	.....	37	.....	21	.....	12	.....	412	1
	Febris typhus et typhoides	1	.....	.....	.....	3	1	.....	.....	3	.....	.....	.....	7	1
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	3	.....	1	.....	5	.....	1	.....	.....	.....	.....	.....	10	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicella	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	598	2	51	1	117	.....	63	.....	56	.....	183	1	1,091	4
	Dysenteria acuta	208	3	89	.....	93	.....	49	.....	40	.....	20	.....	499	3
	Dysenteria chronica	16	1	.....	.....	3	.....	1	.....	6	.....	3	.....	29	1
	Enteritis	5	1	.....	.....	2	1	2	.....	1	.....	1	.....	11	2
	Hepatitis acuta	8	.....	1	1	4	.....	.....	.....	.....	.....	1	.....	14	1
	Hepatitis chronica	2	.....	3	.....	2	.....	2	.....	.....	.....	.....	.....	9	.....
	Obstipatio	213	.....	47	.....	39	.....	31	.....	32	.....	17	.....	382	.....
	All other diseases	164	1	2	.....	66	.....	53	1	35	.....	51	.....	373	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	32	.....	1	.....	12	.....	4	.....	5	.....	12	.....	66	.....
	Catarrhus	119	.....	13	.....	24	.....	31	.....	39	.....	24	.....	270	.....
	Phthisis pulmonalis	3	1	.....	.....	3	1	2	.....	.....	.....	1	.....	9	2
	Pleuritis	19	.....	3	.....	.....	.....	1	.....	8	.....	4	.....	35	.....
	Pneumonia	3	1	.....	.....	2	1	1	.....	.....	.....	7	.....	13	2
	All other diseases	17	.....	.....	.....	.....	.....	3	.....	2	.....	2	.....	24	.....
Diseases of the brain and nervous system.	Cephalalgia	31	.....	3	.....	6	.....	11	.....	10	.....	8	.....	75	.....
	Delirium tremens	20	.....	2	.....	2	.....	3	.....	4	.....	6	2	37	2
	Epilepsia	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	.....
	Neuralgia	30	.....	4	.....	6	.....	2	.....	.....	.....	4	.....	46	.....
	All other diseases	22	3	1	.....	7	.....	1	.....	2	1	1	.....	34	4
Diseases of the urinary and genital organs.	Gonorrhœa	19	.....	4	.....	11	.....	8	.....	9	.....	21	.....	72	.....
	Stricture urethræ	7	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	9	.....
	Syphilis primitiva	8	.....	4	.....	4	.....	.....	.....	2	.....	4	.....	22	.....
	Syphilis consecutiva	5	.....	2	.....	3	.....	3	.....	3	.....	4	.....	20	.....
	All other diseases	31	.....	5	.....	6	.....	10	.....	4	.....	9	.....	65	.....
Diseases of the serous and exhalent vessels.	Ascites	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....
	All other diseases	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	12	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	152	.....	12	.....	42	.....	33	.....	47	.....	40	.....	326	.....
	Fistula	.....	.....	1	.....	2	.....	.....	.....	.....	.....	1	.....	4	.....
Abscesses and ulcers	Phlegmon et abscessus	189	.....	27	.....	86	.....	64	.....	59	.....	70	.....	795	....
	Ulcus	207	.....	2	.....	22	.....	13	.....	14	.....	10	.....	268	.....
Wounds and injuries	Ambustio	28	.....	3	.....	3	.....	1	.....	3	.....	2	.....	40	.....
	Amputatio	2	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	4	.....
	Contusio	319	.....	48	.....	68	.....	43	.....	60	.....	70	.....	608	.....
	Fractura	17	1	1	.....	4	.....	4	.....	6	.....	2	.....	34	1
	Luxatio	16	.....	.....	.....	.....	.....	2	.....	3	.....	3	.....	24	.....
	Punctio	1	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	6	.....
	Sub luxatio	67	.....	.....	.....	18	.....	16	.....	30	.....	18	.....	149	.....
	Vulnus incisum	93	.....	12	.....	9	.....	19	.....	18	.....	26	.....	177	.....
	Vulnus laceratum	38	.....	5	.....	11	.....	16	.....	26	.....	18	.....	114	.....
	Vulnus punctum	31	.....	.....	.....	5	.....	13	1	5	.....	3	.....	57	1
	Vulnus sclopeticum	20	.....	2	1	6	.....	2	.....	2	.....	8	1	46	2
Miscellaneous	Debilitas	31	.....	5	.....	16	.....	9	.....	12	.....	16	1	89	1
	Ebrietas	42	1	10	.....	5	.....	13	.....	19	.....	21	.....	107	1
	Hemorrhois	39	.....	1	.....	5	.....	6	.....	8	.....	9	.....	68	.....
	Hernia	7	.....	.....	.....	1	.....	.....	.....	3	.....	5	.....	16	.....
	Morbi cutis	66	.....	7	.....	11	.....	4	.....	17	.....	24	.....	129	.....
	Morbi oculi	95	.....	10	.....	29	.....	32	.....	19	.....	33	.....	218	.....
	Scorbutus	42	3	2	1	48	.....	26	.....	3	.....	105	.....	226	1
	Suicidium	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2
	All other diseases	331	2	77	.....	89	1	66	.....	61	.....	75	.....	759	3
	Total	6,990	21	537	4	1,163	5	786	2	943	1	1,116	5	11535	11

AMONG THE TROOPS AT POSTS IN TEXAS—WESTERN FRONTIER.

FOURTH QUARTER.

CLASSES OF DISEASES.	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	6,225.		1,176.		1,577.		1,425.		1,068.		1,130.		12,601.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases	Died.	Cases.	Died.	Cases	Died.	Cases	Died.	Cases	Died.	Cases	Died.
Fevers	Febris continua communis	39		6								3		39	
	Febris inter. quotidiana	1,264		74		86		41		39		34		1,538	
	Febris intermittens tertiana	1,260		41		26		39		63		61		1,490	
	Febris intermittens quartana	63		10	1					9		1		83	1
	Febris remittens	93		14		21	1	21		18		7		174	1
	Febris typhus et typhoides	8	1	1		2		3	2	1	2	2		17	5
	Febris typhus reiteroides	1												1	
Eruptive fevers	Erysipelas	5				1		2						8	
	Rubeola														
	Scarlatina														
	Variola	1												1	
	Varioloides	4												4	
Diseases of the organs connected with the digestive system.	Cholera Asiatica	196	133											196	133
	Diarrhœa	688	3	69	1	69		70		39	1	78		1,013	5
	Dysenteria acuta	265	5	85		43		28		17		15		453	5
	Dysenteria chronica	51	4	1		10		2						64	4
	Enteritis	11	2							2				13	2
	Hepatitis acuta	5		1				1				2		9	
	Hepatitis chronica	3	1	1		2		1						7	1
	Obstipatio	121		26		23		22		27		39		258	
	All other diseases	89	2	23		35	1	26		22		17		242	3
Diseases of the respiratory system.	Bronchitis, acuta et chronica	38		4		28		16		12		4		102	
	Catarrhus	335		71		48		77		52		54		637	
	Phthisis pulmonalis	10	5		1	1				1	1	1	1	13	8
	Pleuritis	21		8				3		2		5		39	
	Pneumonia	19	1	8				1		3				31	1
	All other diseases	16	2	1	1	2		2	1			2		23	4
Diseases of the brain and nervous system.	Cephalalgia	20		2		2		10				4		38	
	Delirium tremens	14	2	4				3		1	1	7		29	3
	Epilepsia	6	2											6	2
	Neuralgia	23		1		2		2		1		2		31	
	All other diseases	12		6	1	5		5		2	1	3		33	2
Diseases of the urinary and genital organs.	Gonorrhœa	34		2		11		10		3		23		83	
	Structura urethræ	5		1		1						1		8	
	Syphilis primitiva	11		6		4		9				2		32	
	Syphilis consecutiva	13		5		3		1		2		7		31	
	All other diseases	19	1	4		9		8		6		13		59	1
Diseases of the serous and exhalent vessels.	Ascites	1										1		2	
	All other diseases	10	1	1		1				2				14	1
Diseases of the fibrous and muscular structures.	Pertussis	2	1	1										3	1
	Podagra							1						1	
	Rheumatismus	183	1	41		30		46		23		44		387	1
Abscesses and ulcers	Fistula	4		1										5	
	Phlegmon et abscessus	243		46		54		56		33		28		460	
	Ulcus	184		6		20		21		15		32		278	
Wounds and injuries	Amburstio	30		3		7		1		2		3		46	
	Amputatio	2												2	
	Contusio	301	2	56		56		51		66		68		598	2
	Fractura	8		5		12	1	4		4		3		36	1
	Luxatio	15		1		3		1				4		24	
	Punctio							2						2	
	Subluxatio	54		16		24		21		10		15		140	
	Vulnus morsum	83		17		18		37		23		14		192	
	Vulnus laceratum	45		2		25		44		13		8		138	
	Vulnus punctum	19		5		4		8		2		2		40	
	Vulnus sclopeticum	18	3	4		8		5		5	1	8	1	48	5
Miscellaneous	Debilitas	27		4		4		3		7		3		48	
	Ebrietas	31	1	5		9		29		17		22		104	1
	Hæmorrhois	34		2		3		14		2		5		60	
	Hernia	2		1		1		1		3		7		15	
	Morbi cutis	19		16		8		7		4		7		61	
	Morbi oculi	84		23		24		15		8		14		170	
	Scorbutus	71	2	28		10		9				1	1	119	3
	Sunedrium														
	All other diseases	252	2	25		49	1	51		52		55		434	3
	Total	6,486	177	784	5	827	4	821	3	613	7	711	3	10212	199

NEW MEXICO.

The military posts in New Mexico that have been garrisoned by troops within the period specially embraced in this report, that is, since January 1855, are the following: Fort Massachusetts, Cantonment Burgwin, Forts Union and Marcy, Albuquerque, Forts Defiance, Craig, Thorn, Fillmore, Bliss, Stanton, Garland, and Buchanan. The headquarters of this military department are at Santa Fé.

For the locality, topography, and diseases of many of these posts, reference may be made to the report of 1856. The most interesting and valuable of the sanitary reports received from this region since the publication of the statistical report of 1856, are here presented.

SANITARY REPORT—FORT BUCHANAN, (ARIZONA.)

Assistant Surgeon B. I. D. Irwin: February, 1859.

Fort Buchanan, Arizona, is situated about midway between the Rio Grande del Norte and the Rio Colorado of the West, in latitude 31° 40′ N., and longitude 111° 30′ W. of the meridian of Greenwich, and elevated about 5,350 feet above the sea-level. The so-called fort is placed on the western slope of a small irregular plateau, about one mile in length, and one thousand or twelve hundred yards broad, environed on three sides by a *cienega*, which varies in breadth from one to five hundred yards. On the north side, the plateau is continued to, and lost in a series of low broken hills and mesas; to the westward, extensive rolling hills intervene between it and the Whetstone mountains; on the south, the hills are broken, and extend themselves until they are merged into the Jachuca and Santa Cruz mountains; ten miles to the west, the lofty peaks of the Santa Rita rear their rugged heads to an elevation of almost 12,000 feet above the level of the ocean. The general aspect of the country is wild, picturesque, and bold; broken into the most fantastic shapes; the plains cut up and intersected by countless cañons, arroyos, ravines, and the dry beds of mountain torrents. The geological features of the country are as varied as they are interesting. Granite, syenite, gneiss, and primary limestone enter largely into the structure of the mountains; whilst the low hills and table-lands have a predominance of red and white sandstone, metamorphic sandstone, mountain limestone, (having fossils in abundance, such as terebratulæ, ammonites, encrinites, corals, &c.,) conglomerate, travertine, and drift. Extensive walls of trap are met with running east and west, with a northern dip.

The evidence of subterranean forces having played an important part in the production of the present physical peculiarities of the country, is particularly evident; at the same time, the immense strata of drift and debris show that water has been an important element in the production of those changes. Thermal springs are remarkably abundant, and particularly interesting from their special properties. On the southern side of the fort are some high limestone hills, amongst which are several of those hot springs, which are and have been constantly depositing immense beds of tufa and travertine, which has caused many physical changes in the vicinity. In some places subterranean forces have elevated these beds into considerable hills, or hurled them up into fragmentary masses of strange and uncouth appearance. Grottoes and caverns are scattered everywhere throughout these structures, where hot, vapor, and shower

baths, may be enjoyed amidst forests of stalactites of fantastic growth. The mountain ranges have a general north and south trend; the different chains being separated from each other by level plains, ranging from twenty to forty miles in width. Some of these plains are totally devoid of every trace of vegetation, being inundated during the rainy season. After evaporation has removed all the water from them, their beds become covered with an extensive deposit of salitra, (nitrate of soda,) which, when viewed from a distance, gives them the appearance of being vast lakes. Here can be seen the mirage, presenting all the strange and beautiful phenomena of a natural kaleidoscope. These fairy-like scenes are momentarily changing their enchanting beauties. The Playa de los Pimos, the most extensive of these plains, has all the appearance of having been at some remote period a great lake, which has been deprived of its waters by some internal convulsion of the earth, that has caused the elevation of its bed above its former level.

The mineral productions of the country are of the most abundant and varied character.

Granular gold has been found in many of the mountains, and recently this metal has been found in large quantities on the Rio Gila and its tributaries. Silver, lead, and copper have been found in almost every section of the country, in fabulous quantities. Iron, zinc, tin, bismuth, antimony, arsenic, graphite, and alum have also been found in different localities. Mining in gold, silver, lead, and copper is now carried on on a most extensive scale, and promises to prove a source of great wealth. The silver mines are reputed to rival in value and extent the famous mines of Peru and Mexico.

Forest Trees.—The sylva of the country is of the most diversified character. In the mountains fine timber is found in abundance of the following varieties: Pine, piñon, fir, cedar, and spruce; in the river valleys, ash, sycamore, buttonwood, cottonwood, hackberry, black walnut, elm, and mesquite of a very large kind; on the plains, live-oak in great abundance and of superior quality and size, white-oak, several varieties of mesquite, some of which yield an excellent kind of gum acacia, ironwood, cedar, and a variety of maple.

Plants.—Of shrubs there are great numbers, varying in each locality and according to the character of the soil in which they grow. Wild cherry, sumach, poison-oak, sage bush, elder, box-elder, creosote bush, scrub-oak, red willow, white willow, wild currant, manzanita, gooseberry, wild grapevine, a variety of oleander, mulberry, and *cowania stansburiana*. In a short sketch like the present, it is impossible to give a detailed account of the vast number of plants to be met with in this region, therefore the predominant orders only will be enumerated, which are as follows: Solanaceae, labiatae, cruciferae, violaceae, ranunculaceae, asclepiadaceae, liguminosae, polygalaceae, vitaceae, geraniaceae, oxalidaceae, rosaceae, cactaceae, grossulaceae, umbelliferae, caprifoliaceae, compositae, scrofulariaceae, convolvulaceae, gentianaceae, euphorbiaceae, juglandaceae, cupuliferae, salicaceae, urticaceae, coniferae, amaryllidaceae, liliaceae, gramineae, equisetaceae, musci, lichens, and fungi. Among this list many strange varieties are to be found, not a few of which are new and as yet unknown in natural history.

Mammals.—Like the flora, the fauna of this vicinity is of a highly diversified and interesting description. The following have been noticed: the panther, leopard, wild cat, lynx, grey wolf, coyote, red fox, grey fox, grizzly bear, brown or cinnamon bear, badger, pole cat, weasle, raccoon, beaver, rat, mouse, prairie dog, mole, gopher, ground hog, grey squirrel, brown squirrel, ground squirrel, antelope, white-tailed deer, black-tailed deer, peccary or Mexican hog, and the mustang or wild horse, which roams over the plains in vast herds.

Much might be written about the rare and beautiful birds that abound in this country, many of which are remarkable for the gorgeous beauty of their plumage. The following have been met with: wild turkey, (*Meleagris mexicana*,) swan, brent, mallard duck, greenwinged teal, bluewinged teal, diver, blue crane, white crane, white heron, grey heron, jack-snipe, sand-snipe, kildeer plover, curlew, bittern, kingfisher, water-hen, black hawk, grey hawk, reddish hawk, sparrow-hawk, Emory's hawk, night-hawk, chuck-willswidow, turkey buzzard, yellow-beaked buzzard, raven, crow, (two varieties,) magpie, hooting owl, white owl, prairie owl, three

varieties of jay, (*Cyanocorax maximilianus, C. ultramarinus, C. macrolopha,*) bluebird, blackbird, red-winged blackbird, yellow-winged blackbird, large redbird with crest, small redbird, mocking bird, bunting, yellow-hammer, meadow-lark, sand-lark, titmouse, (blue, with crest,) titmouse, (greenish, with crimson crest,) humming bird, (three varieties,) pisano or prairie pheasant, massena partridge, black-crested quail, speckled quail, crimson-headed woodpecker, large grey woodpecker with red crescent on breast, small grey woodpecker, bluish woodpecker with red spots all over the body, fly-catcher, cat bird, chaffinch, sparrow, wren, swallow, martin, golden oriole, dove, ringdove, and wild pigeon.

Fishes.—In the rivers and ponds are to be found trout, (*Gila robusta, G. elegans, G. gracilis,*) catfish, mullet, perch, minnow, and sun or pan fish.

Reptiles.—The number and varieties are considerable, embracing several possessed of the most deadly poisonous qualities, such as the large diamond-headed rattle-snake; the short prairie or ground rattle-snake; the coralito, a very small, delicate, and beautifully colored snake, the bite from which is fatally poisonous; the viper; the puff-adder; the moccasin; black-snake; and many other varieties the names of which are unknown to me. The "escupion" or spitter is a large variety of lizard, from twelve to twenty-four inches long, eight inches in circumference, beautifully marked with black and lemon-colored elevated spots, slow in its movements, and making a hissing noise when irritated, and thrusting its tongue from its mouth after the manner of a serpent. By the Mexicans and Indians it is reputed to be deadly poisonous; so much so that they never attempt to kill it, lest, during the act, the animal might spit on them, which they consider sufficient to cause a speedy death. I have every reason to doubt the truth of their belief, and presume that the ugly appearance of the creature has given to it its bad character. Those that I have taken alive showed no disposition to injure, their only efforts at protection against injury, or irritation, were an occasional hiss and frequent change of color, by the same power which others of this order possess and exercise when under the influence of fear or anger. The other varieties of lizard amount to about two dozen, some of which are very remarkable for their form, color, and swiftness of foot. Of chameleons there are two species. I have met with but two varieties of "horned frog"—doubtless there are many others. Frogs and toads are very numerous, and the horseleech is found occasionally. A variety of rattle-snake, found on the sand plains, has a fold of skin in the form of a hood over the eyes, capable of erection, which gives it the appearance of being a "horned snake," by which name it is known amongst unscientific people.

Insects.—Of this class of the animal kingdom there are many interesting and curious species, some of which are remarkable for the poisonous character of their defensive organs, while others are no less so from their strange and hideous appearance, not a few of which are new and undescribed in the scientific world. Of the coleopterous insects there are multitudes, of the most beautiful and variegated colors and form. Orthopterous, neuropterous, hymenopterous, lepidopterous, hemipterous, rhipipterous, dipterous, apterous, and myriapodous insects are found throughout the country, in the most varied abundance. The "vinagrilla" (or *Thelyphonus,*) an aptero-crustaceous insect, is specially remarkable for its hideous appearance and the venomous character of its bite. Its form is somewhat like that of a small cray-fish, of brownish-black color, hard shelly covering, large belly and thorax, small head, armed with powerful jaws and fangs; it has four pairs of legs, the anterior pair being prehensile and preternaturally large, like those of the lobster. It has a tail from one to three inches long, filiform, and formed by innumerable joints, which give it the power of being used in every direction. The animal grows to about two or two and a half inches long, and derives its Spanish name from the powerful odor of vinegar which it generates when irritated. These insects are very numerous during the warm seasons, inhabiting dark places under rocks and other protecting substances, and are dreaded much by the native population. Horses and other animals bitten by the vinagrilla present similar symptoms to those wounded by the rattle-snake. I have seen only one

person (an Indian boy) bitten by it. The patient suffered much, and ultimately died from the secondary effects of the injury. Centipedes, scorpions, and tarantulas infest the country in vast numbers during the hot seasons. It is needless to remark upon their poisonous character. I have not seen a fatal injury resulting from the wounds inflicted by these insects, but have witnessed injuries received from the centipede followed by inflammation of the most violent character, profuse suppuration, and low typhoid fever. In the neighboring State of Sonora I learn that many young persons lose their lives by the sting of the scorpion or *alacran*, of which there are two kinds found at this place. Centipedes have been secured here that measure ten inches in length and one in breadth. Tarantulas are frequently found measuring eight inches long, and having fangs an inch in length.

To persons interested in natural history, I respectfully refer to the collection made at this place by me for the Smithsonian Institution, as, in an article like the present, it is impossible to give more than a concise sketch of the many interesting features which this new and strange country presents to the naturalist.

CLIMATE.—The climate in the vicinity of Fort Buchanan is warm and agreeable throughout three fourth parts of the year. December, January, and February are the winter months; and, although cold, still the sharp morning and evening air is agreeable and bracing. During the warm months, June, July, August, and September, the thermometer frequently rises above 100° Fahrenheit in the shade, yet the air is not oppressively hot, as it is tempered with the cool breezes which constantly blow from the mountains.

The highest degree of the thermometer was at 2 o'clock, P. M., June 27, when it reached 107° Fahrenheit in the shade; the lowest at 7, A. M., January 5 and 15, when it descended to 18° Fahrenheit. January was the coldest month, mean temperature 39°; July the warmest, with an average temperature of 75°; mean temperature for the year, 59°; average difference between thermometer and hygrometer, 11°.

The quantity of rain that fell during the year was 16.08 inches, being 1.34 per month. May was the only month during which rain did not fall. In February, June, and November, the quantity that fell was trifling. July, August, and September constitute the rainy season. In the open country, snow falls but seldom, and only in small quantities; in the mountainous regions, it is more frequent and in greater abundance. Ice is seldom formed over half an inch thick. In the spring and summer, thunder and lightning of the most vivid kind are very frequent.

Fort Buchanan consists of a series of temporary *jacal* buildings, which have been erected from time to time, scattered over a distance of half a mile, and built without any regard to the permanent occupation of the present immediate location. The site of these buildings is irregularly elevated some thirty or forty feet above the level of the surrounding *cienega*, a swampy morass which encircles it on the east, south, and western aspect. The ground is cut up into innumerable hills, mesas, arroyos, and ravines, having a plentiful growth of fine stately live-oaks, which afford a most agreeable shade during the warm seasons. The structures used as quarters for the men, most of those used by the officers, the laundresses' quarters, storerooms, and workshops, are formed of pickets placed perpendicular to the ground, the chinks filled up with mud, and the roof covered with the same material. It is needless to say that such buildings present any other than a neat or comfortable appearance.

The chinking remains only long enough to dry, shrink, and tumble out, never to be replaced, lest it should destroy a new system of ventilation which its absence has established. During the wet weather the mud roofs are worse than useless—save it be for the purpose of giving dirty shower baths to the unhappy occupants. After a day of rain, the condition of the quarters of both officers and men is abominably miserable. The picket lines used for stabling purposes are in front of and close to the barracks. Stables, corrals, pig-pens, root-houses, open latrines, and dwellings, are indiscriminately scattered all over the camp, wherever the fancy of the owner

prompted him to squat. The physical nature of the ground renders anything like uniformity or regularity impossible. The police regulations of the garrison are as good as circumstances will permit. The hospital and two sets of officers' quarters are the only adobe buildings at the post. Water, which is hauled from a distance in carts made for the purpose, is supplied from one of the many springs to be found in the *cienega*. It it clear and palatable, but highly impregnated with calcareous salts and vegetable matter. This *cienega* consists of alluvial deposits and extensive beds of decaying organic matter, the result of the rank, forced vegetation of the hot season. Here several warm and cold springs pour forth their contents, which run over the surrounding level surface, forming a *peat* marsh of considerable extent, wherein there are several stagnant filthy pools, in which vast herds of swine may be seen constantly basking in the mud or rooting up the fœtid and miasmatic soil of the adjacent quagmires. The southern extremity of this delectable spot has been cultivated as a garden, and is constantly inundated for irrigating purposes during the summer; it lies between two hills which form a funnel-shaped gorge, through which blow the prevailing winds of the year from the south and southwest. The drainage from the swamp flows through this opening and yields its effluvia to the southern breeze, which, in due time, regales us with this poisonous compound.

Before speaking of the diseases, I will say a few words about the inhabitants of Arizona, particularly of those in the vicinity of the fort. Of the Indian tribes inhabiting this country, but little is known save what can be gathered from Mexicans who have escaped from captivity among them. They are divided into two classes, the semi-civilized or *tame* Indians—Pimos, Maricopas, and Papagoes, (Pueblos)—amounting to about eight thousand individuals, who cultivate the soil extensively, live in permanent habitations, and wage a perpetual war against their *wild* brethren. The Pueblos are a mild, inoffensive race, industrious and capable of being made good, peace-loving, law-abiding citizens. They now constitute the best laborers in the country, and are ambitious to improve their social condition. The superiority displayed by this class in the cultivation of their farms is strikingly manifest when compared with the efforts of their more civilized neighbors. Their houses are light, fragile structures, such as might be expected to be found among a rude people inhabiting a warm climate.

The savage Indians are the Mimbres, Chillicahuas, Coyoteros, Piñalenos, Mogollones, Tontos, and Yumas, all tribes of the Apaches, estimated collectively at ten or twelve thousand souls, who lead a barbarous, nomadic life, gaining their existence principally from plundering incursions unceasingly carried on against the Mexican States of Chihuahua and Sonora, where their ravages have laid waste whole districts. Some few among them raise a small quantity of maize, pumpkins, and melons; but during the winter, many of them subsist on the *mescal*, a variety of the "maguey," found in abundance all over the mountainous regions of the country. During this season the Indians collect in the mountains to feast on this plant which, when properly cooked, is a very agreeable and nourishing article of diet. They prepare it for use by placing vast heaps of it in pits lined and covered over with heated stones, upon which a large fire is kept constantly burning for three days. It is then taken out, allowed to cool, after which it is ready for use; it is very palatable, being exceedingly rich in saccharine matter, and will keep in good condition for months. The portions used are the petaloid portions of the leaves and the heart of the plant. While roasting, a large amount of sugar, in the form of coarse brown sirup is collected, and is esteemed as one of their greatest luxuries. They distil a nasty, filthy kind of liquor from corn, which is known among them as "*tiswing*," of which they are passionately fond, and never lose an opportunity to get gloriously drunk whenever a little corn can be procured to make it from. Their mode of distillation is as novel as it is simple. The corn procured by stealth, or as a "forced loan," is steeped for twenty-four hours, then placed between the scanty folds of the family couch to ferment beneath the bodies of the lusty warriors whose slumbers are soothed by bright dreams of the "good time coming" when all shall be assembled at the festive wigwam to partake of the intoxicating pleasures of this unpretending

beverage. The malt is now coarsely ground on the *matate*, a certain amount of water added to it, then placed in earthen vessels and allowed to ferment for forty-eight hours, at the end of which it is used without straining or any other process. The better to enjoy "the feast of reason and the flow of soul" these votaries of Bacchus prepare themselves by a solemn fast of forty-eight hours previous to the commencement of the festal joys, for the purpose of enjoying the most profound spiritual impressions; in other words, they get "right royally drunk" on empty stomachs. Were it not for this precaution on their part, the mild character of the beverage would fail to "make the drunk come." The liquor is slightly sweet and somewhat resembles what is known to distillers as sours. The saccharine fermentation is not allowed to pass to the vinous. Another article of food used by both the semi-civilized and nomadic Indians is the mesquite bean, of which they collect and store up large quantities during the summer. This they grind into a coarse kind of meal, mix it with "molasses" made from mescal or *cereus giganteus*, and make it into a kind of bread which is highly nutritious, as it contains a large proportion of gum. From the live-oak they procure abundance of acorns, (*bellotes*,) of which they are very fond, and collect a goodly supply for their winter consumption. This variety of acorn is very nutritious, much sought after by the Mexican population, and forms quite an article of commerce. The "bellote" is to Arizona what the "piñon" is to New Mexico.

The various tribes of the Apaches, one and all, are a cowardly, treacherous, thieving race of Indians, totally devoid of the few good qualities that mark some of their northern brethren. They are poorly clad, ill armed, and, taken as a whole, a most miserable race of human beings. Their arms are the lance, bow, and a few old flint-lock Spanish guns, of the most ancient pattern. Their bows are very inferior; the arrows are generally made very long, of light reed, with a point of hard wood a few inches long, topped with either flint, bone, obsidian, iron, or copper. In many respects the Apache is the southern prototype of the "thieving Pawnee" of the northern plains. The social condition of the female portion of these Indians is anything but pleasant; they are the slaves and drudges of their "red-skinned lords and masters." They are compelled to do all the labors of the camp, to till the fields, build the lodges, dress the peltries, make the clothes, cook the food, herd the flocks, and attend to the wants of their juvenile progeny, while the dusky warrior basks in the sunshine, smoking his cigarito, dreaming over the ruthless deeds of murder and rapine which he has helped to perpetrate upon the unfortunate "pale faces." They are patient and submissive under their miserable existence, industriously inclined, and have learned from their Mexican female captives how to make their own garments in the style of civilized woman. They are married at an early age, but have little or no choice in the selection of their husbands, who purchase them as they do any other article of commerce. Ten horses is the usual price paid for one of these dusky maidens.

Once married they are compelled to be virtuous, as any act of unchastity, outside of the family circle, is punished with the loss of the tip of the nose. I have seen some victims of this cruel and barbarous punishment, whose hideous appearance was only equaled by the misery of the poor unfortunate victim, who lives a life of wretchedness and sorrow; an object of universal scorn amongst her own people, she flees from the sight of her fellow creatures to live, as it were, by stealth. After marriage the husband has the right to take the sisters of his wife, and wed them to himself. Should he die his brother or next relative has to take unto himself the wife or wives of his departed kinsman, but not before twelve moons have been allowed to pass over the mourning widows. The hair is worn short as a token of mourning for a departed relative.

The Mexican population amounts to seven or eight thousand persons, who are chiefly engaged in agricultural, pastoral, and mining pursuits. They are a strange mixture of the Spanish and Indian races; of a polite, cheerful, but lazy disposition; poor, proud, superstitious, and almost wholly devoid of education. The men are of medium stature, robust and hardy; they are thriftless, addicted to gaming of all sorts, improvident, cunning, revengeful, and sadly imbued with a disposition to wander from truth. They are possessed of great natural

politeness, cheerful and mirth-loving dispositions, hospitable in an eminent degree, and devotedly attached to their religion and country.

The females are a little under the medium height, well formed, with graceful figures; and, when young, are possessed of pleasant, agreeable features, amongst which beautiful faces are not at all unfrequent. To delicately-formed hands, superb teeth, fine raven tresses, and magnificent black eyes, may be added the possession of the most exquisitely formed small feet of any other women. Even amongst the poor classes, the want of these natural beauties is the exception to the general rule. An enthusiast would pronounce their delicately but well formed little feet bewitchingly pretty. They are kind, affectionate, industrious, passionately fond of display and amusement, given to intrigue, and sadly deficient in chastity, resulting from a want of knowledge of the customs of more civilized nations, a lack of refined education, and chiefly because the "custom of the country" does not look upon such weakness in the female as anything but a passing cloud which time will efface from the character of the individual. This is the only drawback to the character of the Mexican female, who, did she possess the advantages enjoyed by her more fortunate sisters of the northern climes, would be acknowledged capable of cultivating and disseminating all the happiness and pleasures which flow from refined female character. Even now, the social and moral condition of the Mexican female places her high above that of her "better half." They marry at an early age—from eleven to fifteen, are kind mothers, and raise large families, which they frequently have to support by their own industrial efforts. The Europeo-American portion of the community may be reckoned at two thousand, who are chiefly of that class usually found in our frontier settlements; robust, hardy pioneers, who spend their lives in constant strife with misery, hardship, and privation. Of their manners, morals, or customs, the least said the better for their reputation. They are industrious, and that is all I can say in their favor.

Of the diseases of the Mexican population, but little reliable information can be had, as they have no regular physicians among them, and their few remedial agents are entirely of a domestic nature. I believe the State of Sonora, with a population of 200,000 souls, has only three regular physicians and one apothecary establishment. From such a statement, it might be inferred that the people were specially exempt from disease; on the contrary, a large number of traveling charlatans, designated by the people as "curers," are to be found, who administer their nostrums to the credulous multitude, who are as fond of swallowing medicines as some of your friends nearer home. Intermittent and bilious remittent fevers are prevalent during the warm seasons; venereal disease in its every form is constantly encountered; and phthisis and other scrofulous maladies are not at all unfrequent. Catarrhal ophthalmia is very common during the *wet* portion of the summer season. The therapeutic measures adopted in the treatment of fevers is very simple; a mild cathartic, followed by the free administration of decoction of the common red willow, warm ptisans of some simple kind, and frequent immersions in cold water. When these remedies fail to effect a cure, the patient has to bear patiently with his ills until the succeeding cold season brings relief to his protracted sufferings. It is needless to add that, under such circumstances, the mortality is very large amongst those affected. For the cure of syphilitic affections, much faith is placed in the efficacy of the waters of the numerous mineral springs scattered over the whole country. Patients suffering with tuberculosis are left to their fate. As consumption is looked upon by the majority of the people as being communicable by contact, especially amongst the family of the affected individual, the sufferer is left to drag out a miserable existence until death closes the dreary scene. Although I have attended considerable numbers of Mexican women during parturition, I have not been able to detect any special deviation from the phenomena incident to the physiological process as evinced in other females. There are some deviations from the customs of our lying-in-rooms that are of no interest beyond their novelty.

Amongst the Indians pulmonary affections are very common; also diseases of the eye, the result of exposure to severe vicissitudes of temperature. Intermittent fever is found to prevail

extensively amongst them. For the cure and prevention of this disease, they assemble in the spring season to prepare themselves at the "medicine feast," which consists in swallowing drafts of infusion of some powerful herb that produces violent purging and vomiting, which is kept up during three days, during which all present prepare themselves, as above, in anticipation of and as a preventive against attacks of this disease during the approaching summer and autumn. Some thirty years ago, when the Apaches first commenced their depredations against the Sonoreans, many of them contracted syphilitic disease from their female captives, which spread with fearful effects amongst their own people, who, to get rid of the dreadful scourge that was disseminating itself amongst them, either abandoned the unfortunate victim to die of starvation, or, as in many instances, deprived him of life. This has proved a most salutary lesson to them, as, since that time, the fear of again introducing the disease amongst their own families has been a wholesome restraint upon these barbarians in the treatment of their unhappy female prisoners. At certain seasons ophthalmic inflammation is exceedingly rife among them, and I have noticed large numbers of them with eyes either partially or totally destroyed. In the cure of their maladies charms and amulets are looked upon as important agents, and are found suspended round the neck of almost every individual. I have seen some remarkably *old looking* men and women amongst the Coyotero and Chillicahua Indians, but nothing precise as to their real age could be learned of them. War and disease are fast decimating the Indians of Arizona.

Owing to certain physical peculiarities, before alluded to, of the site of Fort Buchanan, it may be surmised that the place is unhealthy, which is the case in an eminent degree. Since the occupation of the place, the troops have suffered continually from malarial disease, which has attacked every person at the post during the last year, except the sutler's employés and an old negro woman. In the spring, catarrhal affections prevail extensively. During the autumnal months diarrhœa and dysentery of a very aggravated type are of frequent occurrence, having a special tendency to become chronic, and of a most intractable nature, as regards their control by hygienic and theapeutic measures. Throughout the whole year intermittent fever of a very severe form prevails extensively, especially during the autumn and winter months, at which time it constitutes almost the only prevailing disease. During this period it may be looked upon as endemic, as its presence produces almost complete immunity from all other maladies. Its causes are undoubtedly to be traced to the proximity of the swamps and quagmires before mentioned, and the phenomena attending a "rainy season" in a warm climate. To these may be added other local causes, such as immense heaps of stable manure, collected and carefully kept piled up within the camp since its occupation, almost two years ago, the presence of filthy pig-pens, cow-pens, and root-houses, wherein were often found heaps of decaying putrid garden vegetables. Of the quarters occupied by the two companies stationed at this post, one set were constructed of sound pine logs, having the bark removed; the others were built of oak, with the bark allowed to remain. The pine logs were sound and free from decay, while the oak in every instance, was rotten of the heart of the log. The quarters built of pine, although something like one hundred and fifty yards nearer to the swamp, were much healthier than those constructed of the decaying oak, the occupants of which showed a very marked proclivity to the malarial influence. The employés of the sutler's establishment, several in number, were entirely free from the disease, being protected from the influence of the marsh by a small knoll, which acted as a kind of screen to shelter them from the carrying influence of the southwest wind.

The most remarkable characteristic features observed in the course of the disease were its aggravated type, producing a train of symptoms approximating toward remittent fever; the almost total absence of chills or rigors; the protracted period of the febrile paroxysm; frequency of violent delirium; the liability to a recurrence of the disease, from the slightest exposure to fatigue, or imprudence in diet; and lastly, the pertinacity with which the malady clings to its victims, even during the season of cold when frost and snow are abundant.

In the treatment of the disease, it was found to yield readily to ordinary remedies when it was of recent accession, but after frequent attacks the usual therapeutic measures availed but little.

Preparatory to the administration of quinine, or other antiperiodics, emetics or cathartics were frequently found to be absolutely necessary, as, without their effects, quinine was found to be incapable of producing any check to a return of the paroxysm.

When the disease first became endemic amongst the troops, ten or fifteen grains of the sulphate of quinine, given two or three hours before the expected paroxysm, were generally found adequate to check it at once; later on in its course twenty to thirty were required, and latterly it became necessary, frequently, to administer this remedy in doses of from thirty to forty grains, the patient frequently having to take sixty grains daily for several days before any progress could be made in checking the disease. After using the remedy in every manner, I find that ten or twenty grains, given at bed-time, during the period of intermission, will produce a much more certain and better effect on the disease than double the amount administered during the day-time. This I have verified by numerous experiments upon myself and others. I have not met with any inconvenience from the administration of quinine in large doses; patients taking from forty to sixty grains presented no other symptoms of inconvenience than those produced by ten or fifteen. The preparations of arsenic, piperine, fluid extract of black pepper, and citrate of quinine and iron were used in the treatment of the disease when the sulphate of quinine was contra-indicated, or when that remedy was not procurable at the post; but little reliance can be placed in any of the former in preventing a return of or breaking up the disease—they are good adjuncts, but poor preventives, particularly when the malady is of a character as severe as that which has been prevalent at this place. At one time I was reduced to the necessity of using chloride of sodium, which I found to answer much better than most of the above-mentioned remedies. It was administered in doses of two drams every two hours, so as to have the patient take an ounce before the period of the expected paroxysm, and it succeeded in breaking up the disease in from one to four days in about one half the cases in which it was employed. In many of the cases wherein it proved useless, its administration was followed by violent emesis or catharsis, which may account for its want of efficacy in those cases. A strong objection to its use is, that patients cannot be made to view it as a remedy because of its domestic character. For my own part, I consider it as being possessed of superior power in quickly checking the disease over many of the remedies now generally used in the treatment of intermittent fever. When the cerebral symptoms were of a violent character, local depletion, blisters, and cold applications were constantly indicated and resorted to. It will be seen by the tabular statement of the diseases of this post, occurring during the past year, that of 769 cases of disease amongst the *soldiers*, 453 were fevers, of which 354 were quotidian and 96 tertian.

Next in frequency to intermittent fever stand diarrhœa and dysentery as diseases of this region. As before remarked, they are of a severe form, and have a persistent tendency to become chronic, yielding very slowly to treatment.

Towards the latter part of March, catarrh of a most severe kind prevailed as an epidemic, attacking nearly two thirds of the garrison and almost all the settlers in the vicinity. The number taken on sick report with this affection during February and March was fifty-five; a much larger number were attacked, but so slightly that it was not deemed advisable to include them on the sick list, as their cases yielded to gentle treatment.

The disease was ushered in with a chill, followed by high febrile symptoms, headache, pain in the eyes, back, and limbs, and, in every case, tonsillitic or pharyngeal inflammation. Mild antiphlogistic measures were resorted to, to which the disease yielded in from three to ten days. A brisk saline cathartic, followed by the administration of diaphoretics and expectorants, generally sufficed for the removal of the disease. The malady made its appearance with the vernal equinox, which was followed by strong south and southwest gales, accompanied by snow

storms. With an improved change in the weather the disease gradually disappeared. From subsequent inquiries, I find that the affection was equally rife amongst the inhabitants of Tubac, Tuczon, and the neighboring towns in Sonora. Here I must record the result of my observations on the effects of the climate and seasons on traumatic lesions: During the early months of the year, I found that the slightest injury was followed almost invariably by severe inflammatory action, accompanied by general disturbance of the system, and a remarkably slow process of healing. Such was specially the case with persons of intemperate habits. In the warm seasons the reverse was the case, nearly every variety of wound healed by first intention. Of gun-shot wounds, more than twenty came under my care, and I have found them in every case, save where a bone or internal organ was injured, to heal up by the first intention—*no suppuration.* This was so where the injury to the soft parts was of the most serious character. Even when the internal viscera, the bones or joints are wounded, this class of injuries do better, heal quicker, and are attended with less danger to life in this region than at any other place that I am aware of. This is mainly attributable to the benign influence of the climate.

The operations performed in the course of the year, were: resection of the body and part of the ramus of the lower jaw, amputation of the arm, and several other operations of minor importance; all of which recovered in the most satisfactory manner. The following table is the result of one year's careful observation at this place, during which everything that could influence the health of the troops has been carefully noted. Particular attention is called to the sanitary condition of the garrison during last year, and the state of the same men during the preceding year; particularly to the period of five months while the post was on the Santa Cruz river, at Camp Moore, Calabaza.

I. TABLE SHOWING THE DISEASES, &c., OF FORT BUCHANAN DURING 1858.

Month.	Temperature.			Diseases.											Strength of garrison.	Deaths.	Remarks.
	Thermometer.	Hygrometer.	Rain.	Fevers.	Digestive system.	Respiratory.	Nervous.	Urinary.	Serous.	Fibrous.	Ulcers.	Wounds.	All other diseases.	Total.			
January ...	39	31	1.97	9	13	8	3	2	1	2	3	12	2	55	188	....	
February....	45	38	0.51	6	4	1	....	1	....	3	4	5	2	26	177	....	75 men about three weeks on a scout.
March.....	47	38	0.29	10	5	40	1	1	....	4	8	6	6	80	233	....	
April.....	62	47	1.46	4	11	8	2	....	....	3	6	4	3	41	243	....	
May.....	68	52	.....	3	11	2	1	1	....	....	4	2	6	30	154	....	May 11, B and K companies First Dragoons left for California.
June.....	74	57	0.48	8	7	1	2	1	....	....	....	4	4	27	131	....	
July.....	75	64	3.21	23	3	1	2	....	....	....	1	2	4	36	126	....	
August....	73	63	3.50	50	3	....	....	3	....	....	2	3	2	63	121	....	
September..	70	59	1.32	95	5	....	....	1	....	1	....	7	2	111	109	1	In hospital one year with lues venerea, died from dysentery.
October	65	48	0.60	139	5	....	....	1	....	....	....	1	2	118	114	....	75 men on detached service two weeks.
November...	45	39	0.16	74	10	2	....	1	1	....	1	2	1	92	117	....	
December ..	39	35	2.58	32	9	8	....	....	1	1	....	4	5	60	108	....	45 recruits added to mean strength.
Aggregate...	.....	.....	16.08	453	86	71	11	12	3	14	29	52	39	769	1,821	1	
Average	58.5	47.8	1.31	37.7	7.2	6	1	1	2	1.2	2.4	4.3	3	64.1	152	....	

II. TABLE SHOWING THE SANITARY CONDITION OF THE SAME TROOPS IN 1857.

Month.	Temperature.			Diseases.											Strength of garrison.	Deaths.	Remarks.
	Thermometer.	Hygrometer.	Rain.	Fevers.	Digestive system.	Respiratory.	Nervous.	Urinary.	Scrofula.	Ephemera.	Ulcers.	Wounds.	All other diseases.	Total.			
January	46	42	.....	.....	14	3	1	1	....	6	2	4	5	36	228	....	Post at Calabaza, twenty miles to southwest, on the Santa Cruz river; minimum of thermometer 25° at 7, A. M., 25th.
February ...	49	42	0.80	1	7	1	....	2	....	5	1	8	4	29	180	....	
March.....	62	49	.....	1	5	1	....	1	....	....	1	4	1	14	149	1	
April.....	64	50	0.20	3	4	2	2	2	....	4	1	3	4	25	151	....	
May.....	70	56	.....	5	3	....	....	1	....	1	2	3	1	16	138	....	Maximum of thermometer 100° at 2, P. M., on 31st.
June.....	Not taken.		.....	6	4	....	....	....	....	2	1	3	1	17	95	....	Took up position at present site of Buchanan.
July.....	Not taken.		.....	7	7	....	1	....	....	2	1	3	....	21	110	....	
August.....	78	68	10.60	41	11	....	....	1	....	3	5	9	4	74	171	....	Maximum of thermometer 95° at 2, P. M., on 27th.
September..	77	68	4.76	41	8	....	1	....	...	3	4	13	3	73	202	1	
October	67	58	1.70	40	9	2	1	....	....	2	4	8	8	74	199	....	
November ..	48	42	1.97	17	10	....	....	....	...	2	1	1	4	35	192	....	
December ..	43	36	0.69	10	4	3	....	2	....	5	6	13	4	47	208	....	
Aggregate...	.....	.....	20.72	172	86	12	6	10	....	35	29	72	39	461	2,023	2	
Average	60.4	51.1	2.7	14.3	7.2	1	.5	.8	....	3	2.4	.6	3.2	38.4	168.6	.2	Mean of thermometer for ten months only.

This table has been compiled from the hospital records, kept by Acting Assistant Surgeon L. W. C. Kennon, the medical officer in charge of this post, up to January 1, 1858. By comparing the records of the two years it will be perceived that a very marked increase in the amount of disease has taken place during the last year; which increase has been principally in diseases of a malarial character. The number of deaths amongst those under treatment has been very small—one in 1858 and two in 1857. The death in 1858 was the result of constitutional syphilis of the most inveterate form, complicated with an acute attack of dysentery. Those that took place in 1857 were caused by hydrothorax and remittent fever.

It may not prove amiss to place on record my testimony in favor of the use of chlorate of potash as a therapeutic agent, which I have constantly used during the last two years in the treatment of gonorrhœa, both in my public and private practice, with the most gratifying results. I have found it to be such an admirable remedy that I seldom resort to any other in the treatment of urethral inflammation. My method of using it is as follows: one dram of the salt dissolved in eight ounces of water, of which an injection is given every hour for twelve hours, at the end of which the discharge will have become changed and diminished; allowing the remedy to be gradually discontinued until the second or third day, when the disease will generally be found to have ceased. So efficacious has this remedy proved in my practice, that I seldom deem it necessary to give any other medicine, save a Seidlitz draft or a dose of Epsom salt.

In concluding these few hurried remarks I must not forget to say that, although this post is unhealthy, owing, in a great measure, to the local causes of disease found in its vicinity, I consider the climate of Arizona very healthy, and particularly pleasant; in proof of which I may call attention to the fact that out of more than one thousand patients, (which includes women and children, civil employés and soldiers,) treated at this post during the past year, but one death occurred.

If, in the selection of the site for the post, any attention had been directed to the local

character of the place, it would have been apparent at a glance that it would prove unhealthy when occupied as a garrison. It is needless to add that no medical officer was consulted on the subject.

NOTE.—I will here take occasion to remark, that during the last two months much has been done by Captain Ewell to remedy the evil effects of the proximity of the offensive marsh, by establishing a thorough system of drainage, the good effects of which, I trust, will be manifested by a diminution of the amount of disease that may show itself amongst the garrison during the next warm season.

In the summer of 1859, Surgeon William J. Sloan, medical director of the department of New Mexico, made the following report in relation to the "health of Fort Buchanan and the adjacent country:"

MEDICAL DIRECTOR'S OFFICE,
Santa Fé, N. M., July 17, 1859.

SIR: I have the honor to make the following report, as the concise result of my observations and inquiries, during a recent tour with the commander of the department, relative to the health of Fort Buchanan and adjacent country:

The prevalence of intermittent and remittent fever at Fort Buchanan, a post situated in the elevated mountain region of Southwestern New Mexico, naturally excited surprise. For a period of almost three years, the increasing amount of sickness of this character, seemed to impose the duty of personal investigation into the cause, and efforts for a change of location, or other sanitary measures for its relief. A personal examination into the proximate cause of fever at that post has proved very satisfactory; yet, I confess that much remains unexplained, and with difficulty reconciled with all our received ideas of malarial fever.

In the latitude of Santa Fé, these fevers are unknown; as we proceed south and strike the Rio Grande, at Albuquerque, after a distance of sixty-seven miles, and a descent of 2,000 feet, we meet all the coincidences necessary for their development except a high range of temperature; that vicinity is considered healthy. Proceeding down the valley of the river, there is very little fever development until Fort Craig is reached. There, the river bottom presents all the indications necessary; but its well-selected site, on an elevated mesa, and its airy, ventilated quarters, prove a barrier to the inroads of the poison. From this point south to Fort Thorn, we find the fevers of a higher grade and fully developed, with no difference in the geological formation, or in the valley of the Rio Grande, but a much higher temperature. This state of things exists as we advance further south; and Dona Aña, and Cruces, with Fort Fillmore, and the Mesilla Valley, form the great centres of intermittent and remittent fever in the fall, after the drenching rains of July and August, and a high temperature of 107° in the shade; all these circumstances tending to an increased vegetable growth and its subsequent decomposition. One would naturally suppose that leaving the valley of the Rio Grande at Fort Fillmore, and proceeding westward for 300 miles, over arid plains, sandy playas, and high mountains, to Fort Buchanan, the boundaries and limits of fever would be passed. Yet the fact is undoubted, from all I could learn, that malarious fevers are common, and prevail along the whole length of the thirty-second parallel of latitude, wherever settlements are formed. During the last day's journey to Fort Buchanan, after leaving the overland mail route, the descent was very great, and the post itself is near the southern edge of a high table-land, from which the descent into Sonora is very abrupt. Forty or fifty miles south of the post, an almost tropical climate is reached, where oranges and figs grow in the greatest luxuriance, and where, I was informed, fevers of a most pernicious and congestive type prevail every fall.

Fort Buchanan is on the very border of this unhealthy region, but it is sufficiently elevated and mountainous to modify by its climate the type of febrile diseases to the milder forms of

intermittent and remittent. I have no doubt these fevers will prevail to some extent throughout the whole of that country, where there are frequent summer rains, subsequent luxuriant vegetation in the valleys, and a very high temperature. The post is situated at the head of a small valley, in the extensive, broken, foot hills of the southeastern slope of Santa Rita mountains. The scattered, ill-looking buildings are located upon broken, gravelly hills, close to the flat, narrow, meadow-like plain, which, tending south, widens somewhat, and forms the bed of the stream that heads near the post. This meadow-like flat, now dry, presents evidence of complete saturation during the rainy season, with a considerable depth of black loam and decomposing vegetable matter. Near the post a portion of the valley is boggy and swampy, and a source of malarious poison. This spot was considered a main cause of fever, and has been recently ditched and drained, with a decided improvement in the health of the troops. The principal temporary buildings of the post are on elevated ground, widely scattered among a dense growth of large evergreen oaks. The quartermaster's corral, dragoon stables, and sutler's store are on the level meadow-plain. At the present season of the year there is no apparent proximate cause of fever. The hospital was not crowded with such cases, nor did the appearance of the men, at inspection, present very great evidence of its existence. From January to July there is comparative immunity, the original cause not operating. Cases of course occur, from the habits of recurrence in this disease. When the rainy season sets in, the flat valley is deluged, and vegetation progresses vigorously. Upon the cessation of the rains, the intense heat of the sun facilitates the progress of vegetable decomposition, and cases of fever increase; while, at the same time, the prevailing winds from the south, passing up the valley through the gorges in the hills, add, with the cool temperature of the nights, to the causes already existing.

There are *existing* causes of disease at this post which deserve serious consideration. The water of the whole region is execrable, flowing through strata of rotten limestone, argillaceous clay, sulphate of lime, chloride of soda, and decomposing vegetable matter, (liberating sulphuretted hydrogen,) it presents at different points mineral or chalybeate characteristics, filled with impurities, becoming putrid upon standing, and producing disorders and derangements of the bowels. The troops are badly quartered, astonishing as it may seem, after nearly three years' occupation of the country. The houses are built of upright posts of decaying timber, and daubed with mud; the roofs are flat, and covered with dirt and grass, now in a state of decomposition; the rooms are very low, narrow, and without ventilation; the floors of mud, and in the rainy season covered with water. There is no real protection from the sun or rain, in a climate where it is essentially necessary for well men, and especially so for the restoration to health of those who have suffered from repeated attacks of fever. The hospital building is equally primitive and unsuitable as the others, the sick being crowded in one small, hot, unventilated ward.

Immediately northeast of the present site, is a high, dry, airy plain, near the border of the present timbered location, where, in my opinion, the troops would enjoy comparative health.

If Fort Buchanan be considered out of position, in a military point of view, it is scarcely necessary to enlarge upon the practicability of a healthy site in its immediate vicinity. But if it is considered desirable to maintain its present neighborhood, I believe that the requisites for health could be found upon this plain, provided comfortable quarters were erected, suitable storehouses built for the preservation of provisions, gardens established, and antiscorbutics furnished for the use of the troops. In a country so arid, so desolate, and so worthless, it is essentially necessary for man to provide what nature has refused to bestow to render life at all tolerable.

The valley of the Santa Cruz, extending north from the mouth of the Sonorita to Tucson, I consider a miasmatic region, and productive of fall fevers; the same indications as at Fort Buchanan, are present in stronger force from the lower elevation above the sea, and increased grade of temperature. The testimony of the few residents goes to show that the whole region is sickly.

I visited, with the commanding officer of the department, a point about twelve miles north of Tuczon, near the base of the Tuczon mountain, which, unfortunately, was described by some persons as the only one in the vicinity suitable for a military post. The region is most desolate and arid, the calcareous rock approaching closely the surface, and the plain wooded with small mesquite timber. There is a small stream of water, whether permanent or not did not seem to me satisfactorily shown, but hardly in my opinion adequate to the wants of a post.

It is considered important to find a military position near Tuczon, and the great difficulty will be to combine in that desert region all the requisites necessary. Should no other be found, except the one now referred to, it will no doubt prove healthy. I could discover nothing in its vicinity calculated to engender fever to any extent. I would, however, seriously urge a critical examination of the Tuczon mountain, higher up its slopes, with a view to a suitable location. I believe Colonel Reeve has instructions to make this examination, and will I hope be successful.

In the valley of the San Pedro, which we crossed at two different points, we found abundant running water, known to be permanent in certain places, but of the usual character, impregnated with calcareous deposits. The stream runs through deep and precipitous banks, so that the good effect of the water upon the surrounding valley is lost, there being but little more verdure apparent than upon the neighboring mesas. I believe a good position for a post could be found, after a close examination of this vicinity. The object should be, especially, to find an elevated plain near enough to the water to secure its use, yet sufficiently distant and elevated to be beyond its malarious influence. Fevers will prevail until good quarters and other comforts are secured; but I would anticipate comparative freedom from disease subsequently, except what will always be developed to a greater or less extent on this parallel of latitude.

The whole country traversed is comparatively worthless as an agricultural region, but will at no distant day develop largely its mineral wealth. The importance of military protection is undoubted, and in selection of military sites I seriously recommend the following considerations, always secondary to the position in a military point of view:

1. That close preliminary examination be made, and high mountain regions be preferred, where the valley opens west to east, or from east to west, a great extent of surface not being subject to inundation in the wet season.

2. That in the erection of quarters in that latitude, strict attention should be given to their free and complete ventilation, to their position with regard to shade, and to the necessity of wide and cool portals.

3. That in a country where there are no natural advantages, particular attention should be given to the health and comfort of the troops, in their clothing, their food, and police.

4. That where positions are to be examined for military posts, a medical officer should be consulted and his report well weighed; and that in all sanitary arrangements after selection, his views and opinions should receive careful consideration; that the real responsibility may rest where it belongs.

Very respectfully, your obedient servant,

WILLIAM J. SLOAN,
Surgeon and Medical Director.

Lieutenant J. D. WILKINS,
Acting Assistant Adjutant General, Department New Mexico.

SANITARY REPORT—FORT UNION.

Assistant Surgeon J. Letterman: October, 1856.

In compliance with the directions of the department concerning the transmittal of quarterly reports of sick and wounded, I have the honor to submit a few observations, in a medical point of view, regarding this post:

In latitude 35° 54′ 21″ N., longitude 104° 57′ 15″ W., and at an altitude of 6,670 feet above the sea, Fort Union is situated in a valley running from northwest to southeast. This valley descends on both sides towards an arroyo, which, winding through it, drains it. At the spot where the garrison is placed this valley is shut in on the east by the Gallina mountain, seven miles distant, and on the west by a precipitous mass of sandstone, about 150 feet in height. A portion of the post is placed in immediate proximity to those rocks, and upon rapidly-descending ground; the remainder, being built nearer the arroyo, is on an almost level spot, and, receiving the wash from the higher part of the garrison, is not so well drained—the water during a heavy rain not unfrequently running into and through some of the buildings. The soil is composed of clay and sand, and is sparsely covered with gama grass. No timber is found near the post, all that is required for building and for fire-wood being brought from a distance of six and eight miles. There is no stream of water sufficiently near to be of any service. The Rio Mora, a fine stream, coming directly from the Taos mountains, about twenty-five miles distant, which for nine months of the year are capped with snow, enters the valley about five miles to the south of the garrison, and a few miles further on forms a junction with the Rio Sapillo, coming from the same mountains, and the waters of both pass on to empty into the Canadian. Quite palatable water is obtained by hauling from a spring near the post; it occasionally gives rise to diarrhœa when used by persons not accustomed to it; I am not able to state what are the mineral ingredients.

The entire garrison covers a space of about eighty or more acres, and the buildings being, of necessity, widely separated, causes the post to present more the appearance of a village, whose houses have been built with little regard to order, than a military post. Unseasoned, unhewn, and unbarked pine logs, placed upright in some and horizontally in other houses, have been used in the erection of buildings, and as a necessary consequence are rapidly decaying. In many of the logs of the house which I occupy, an ordinary sized nail will not hold, to such an extent has the timber decayed, although several feet above the ground. One set of the so-called barracks have lately been torn down to prevent any untoward accidents that were liable at any moment to happen from the falling of the building; and yet this building was erected in 1852. The unbarked logs afford excellent hiding places for that annoying and disgusting insect the cimex lectularius, so common in this country, which it is by no means backward in taking advantage of, to the evident discomfort of those who occupy the buildings—the men almost universally sleeping in the open air when the weather will permit. The building at present used as a hospital, having a dirt roof, has not a room which remained dry during the rain in the latter part of September last, and I was obliged to use tents and canvass to protect the property from damage.

The buildings have been during the past summer, and some are yet, undergoing repairs; and, so long as they are occupied, repairs will constantly be requisite to make them at all habitable.

Badly laid out and badly built, it is now essential that the post be rebuilt, and buildings erected with some regard to the welfare of those who are destined to occupy them, and not on the principle of short-sighted and extravagant economy.

As will be seen from the accompanying report of sick there have been no cases of sickness calling for especial remark, but I may say that none of the cases of fever originated here. Several cases of erysipelas of the face and head (among persons destitute of many of the comforts of life

and much exposed, not belonging to the command) I have attended, and the chief reliance was placed upon the exhibition of the tincture of chloride of iron in dram doses, (as suggested in the London Lancet,) and although some of the cases were quite severe, success attended in every case in which it was administered. The case of death was that of a man who was taken ill on the march of his company from Fort Thorn to this post after a debauch. The services of no medical officer could be procured until my arrival here, at which time little hope could be entertained of his recovery. He was kept alive for some time by the use of stimulants and such other remedies as the case from time to time required, but eventually to no purpose.

The troops have been chiefly occupied in the erection of temporary stabling, in repairing quarters, some as escort to a surveying party, and in working upon the arrival of stores from Fort Leavenworth and their transmittal to the different stations in this department.

The diet has been that usually issued to troops. As no gardens could be cultivated during the past summer in consequence of the want of water for irrigation, which is required in the spring and early part of the summer, and on account of the great abundance of grasshoppers, extra issues of pickles, &c., from time to time, were deemed necessary for the health of the troops who were liable at any moment to be called upon for hard service, and who at one time were ordered to hold themselves in readiness for field service.

In the clothing, the temperance, and cleanliness of the command, there is nothing to call for any particular remarks.

The climate of the country, from all that can be learned from those who have for some years resided in the Territory, seems to be changing, especially in regard to the increase of rain; and from the universality of the opinion, little reason for doubt can be entertained of its correctness. It is probable that this increase may, in a measure, be owing to the greater extent of land brought under cultivation, and as a consequence a much more extensive surface of upturned land, and of water used in irrigation exposed to evaporation, which at this altitude is very great.

Wounds in this climate do not readily heal unless completely protected from all external influences, being prone to erysipelatous inflammation, and even in many cases not healing quickly when such inflammation does not supervene. The use of collodion or some preparation of a similar character in the dressing of wounds is highly beneficial.

SANITARY REPORT—FORT THORN.

Assistant Surgeon T. Charlton Henry: September, 1856.

In consequence of the more than ordinary proportion of patients I have had to treat during the last quarter, I feel it my duty to make a special report accompanying my return.

The position of Fort Thorn is somewhat elevated above the level of the Rio Grande del Norte, whose waters pass within a mile of the post. Its distance is eighty-five miles below Fort Craig, on the western side of the river, and fifty-one miles above Fort Fillmore; the position of which latter post is on the eastern side of the Rio Grande. Two miles westward of Fort Thorn a llano of nearly thirty-five miles in width extends, but partially broken by a few undulating hills. This mesa forms an abutment of some thirty to forty feet upon the same elevation of ground on which Fort Thorn is situated. The river bottom is but a hundred yards in front of the post, with more or less growth of timber, principally the *salix viminalis* and *populus canadensis*. The broken and projecting portion of the mesa, to the westward, is mostly of red clay, and mingled with it is found a comparative abundance of native gypsum in laminated conglomerations and very scattered. The soil between the fort and the mesa westward is sandy, abounding in a low growth of prosopsis and artemisia.

The post itself is on ground composed of a mixture of clay and sand, the former being uppermost.

Eastward and across the river, five miles distant, is a chain of mountains, beyond which lies the Jornada del Muerto, through which passes the principal wagon road from Santa Fé to El Paso del Norte.

At periods of overflow of the river, and during the early fall months, standing pools are formed about the vicinity of the post. Many of these pools are shaded by trees of the cottonwood species; only now, however, partially, much of the timber having been cut away.

To the presence of these pools, and the thinning out of the trees about them, must be attributed, to a certain extent, the miasma which is the cause of the exceeding prevalence of remittent and intermittent fevers at this station.

The garrison of Fort Webster was first located in this spot, in November, 1853. Upon reference to my quarterly reports for the year 1854, you will observe my sick list exceedingly small; indeed, there was scarcely any sickness at the post the first year of its settlement.

But now *quantum mutatus*. About the 10th of September, last year, ague appeared and a large proportion of the command here were victims of its influence. That fall also was somewhat prevalent, though but to a small extent, bilious remittent fever. But, sir, this year how vastly exaggerated is the sick list; and reasoning *à priori*, what may it not be the ensuing year, subsequent to the advent of warm weather. For about the 5th of July of the present year bilious remittent fever made its accession, and continued to prevail till about September 8, when ague seemed in a great measure to succeed it. The month of July last, seventy-eight men out of ninety (the entire command) were sick with remittent fever. In the latter portion of August, Major Blake, of the First Dragoons, encamped near here with one company of recruits and the regimental band, and was in a fortnight subsequent joined by two more companies. Sickness, especially ague, commenced very soon after among his men, cases of camp dysentery and throat affections, the latter during rainy weather; but the two latter are rare affections here.

The character of the ague here is much the same as elsewhere—quotidian being the commoner form; as elsewhere, too, the functions of the liver are deranged. Quinine is by no means always effective as a remedy, even in ten-grain doses; twenty grains during the remission will often fail. In many cases, a combination of this drug with piperine I have found to act with more energy.

Fowler's solution in the usual doses succeeds, I have found, in about one third of the cases; but does not appear to effect any more permanent cure.

The bilious remittent fever met with here, with no preceding chill, varies much in character. Exacerbations are from three to ten, or twelve hours daily, as regards duration. Night sweats are a characteristic accompaniment.

For the cure of these cases, quinine and bark are the principal remedies I have used with success. But in nearly every case after the fever has been broken, very slow convalescence results; to hasten which I have had recourse to infus. serpentariae, combined with which I generally make use of from ten to fifteen drops of the acid sulph. aromat.

I should have mentioned that obstinate diarrhœa is not very rare as a sequence of bilious remittent; also should have stated that the combination of sub. mur. hyd. is exceedingly essential, with quinine, to check the latter affection. I have found nothing so effectual in obstinate diarrhœa, where the discharges are of a light, watery character, as a combination of sulph. cupri. with mass. hyd. and ipecac.

The cases of dysentery I have treated, with the exception of two, have resulted in recovery. The two who died had been exposed to wet and cold sometime after contracting the disease, and after the advent of the disease, and I was not called upon to treat them till a late hour. One had been long affected with chronic diarrhœa, and his symptoms seemed to show an extensive inflammation of the mesenteric glands. From the earliest period they were brought to my hospital they were obliged to be nourished by nutritive injections. Although a cure in one case seemed about to be effected, yet nature, too exhausted, would not react, and death was the result.

These two men are the only cases in the line of my practice I have for four years had the ill luck to lose.

In conclusion, sir, let me urge on the powers that be that the position of this post be removed, and let me suggest that it be not far from the old station of Fort Webster. In a military point of view it would be fully as effective. Does any one for a moment believe, and would any one of good sense urge, that it would promote "the good of the service" to retain troops *precisely* in this position, when a removal of only ten or twenty miles westward (the site of old Fort Webster is fifty) would tend to keep the command in nearly perfect health all the year, instead of remaining here, two thirds of the command being perfectly unable to do service nearly one half of every year.

Were there no surgeon at this, the sickliest post in the Territory at this time, and the prevailing malady not properly treated, every man here, very nearly, would, after a series of attacks of ague or fever be seized—as the Mexicans about us and below us are—with a congestive type of fever, and die off like so many sheep with the rot.

SANITARY REPORT—FORT THORN.

Assistant Surgeon P. A. Quinan: September, 1858.

Fort Thorn is in latitude 32° 46′ 54″ N., and longitude 107° 20′ 48″ W., is elevated 4,500 feet above the sea, and is located upon the right bank of the Rio Grande river. The post is, by an air-line, seventy-five miles west of Santa Fé, and 201 miles south of that place. By the wagon road, which follows the sinuosities of the river, the distance is estimated at 350 miles.

The post is opposite the Jornada del Muerto, from which it is separated by the river and a lofty range of mountains, a continuation of the Sierra San Mateo. The Mexican village of Santa Barbara is in the neighborhood of the garrison.

Fort Thorn is located upon the immediate edge of an extensive marsh, the river making a considerable bend at this point, leaves exposed to the right, a crescentic flat, intersected by numerous sluices, and at times completely inundated. The buildings constituting the fort are placed within a stone's throw of the swampiest portion of this flat or bottom, and in the most admirable manner, if the object be that the garrison shall inhale, for an average period of five months, the pestilential effluvia arising therefrom. The bottom referred to, presents during the hottest months, a surface of oozy mud, covered with green slime, and interspersed with pools of stagnating water, which surface is during these months gradually drying up. During the same time, a rank vegetation of weeds and grasses undergoes the process of germination, advancement to maturity, and decay. As might be expected, fevers of a malarious character, have greatly afflicted the command during this quarter. These diseases have prevailed to even a greater extent than in former seasons, which may possibly be due to an unusually continued elevation of temperature, and the absence of rain, which serves to prevent the fall of the river and stagnation of water, in the neighboring sluices. Fevers began to manifest themselves about the middle of July, and have continued with much virulence until the present time. The command then consisted of two companies, and the sick report numbered seventy cases. The garrison was reduced on the 1st September, to one company of infantry, half of which has since been removed to Fort Fillmore on detached service. Scarcely a man of this command can be considered fit for the performance of ordinary garrison duty, so debilitated are they by disease. The prevailing fever during July and a part of August was of the simple intermittent type, the cold, hot, and sweating stages, being accurately defined. It was treated with mild mercurials and moderate doses of quinine. Later, gastric and severe biliary complications were marked, and a tendency to inflammation of the lower bowels very manifest. Excessive vomiting and purging in the gastric form of the disease, was checked by small doses of creasote and morphia. Cups were generally applied to the abdomen. In the remittents, which showed

themselves later in the season, it was found necessary to support the strength of the patient by tonic infusions; quinine being frequently given in effective doses, without reference to the periodicity of the disease, and with the happiest results. At a time when the supply of this useful article was exhausted, the liquor potassæ arsenitis (Fowler's solution) was effectively substituted. It was found difficult to check the later intermittents with the usual doses of quinine. Upon examination, enlargement of the spleen was invariably found existing in these cases. The treatment resorted to was blistering the region of the spleen, and the administration of iodine in three-grain doses, followed by quinine; this generally proved successful.

It is worthy of remark, that not a single case of tertian intermittent appears upon the report.*

DISEASES.

The general abstracts for New Mexico and the statistics of the following tables cover a period of eleven years, from January, 1849, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	13,783	8,356	106	606	7.6
Second quarter	12,235	7,340	61	600	4.9
Third quarter	13,069	9,140	53	699	4
Fourth quarter	14,693	10,280	69	699	4.7
Annual ratio	13,445	35,116	289	2,611	21.4
Gunshot wounds excluded		34,823	249	2,590	18.5

It is shown by this table that the average annual proportion of cases of disease occurring among troops stationed in New Mexico to the number of officers and enlisted men is 2.61 to 1, and that the corresponding ratio of deaths is 1 in 46.52, or 2.14 per cent. The proportion of deaths to cases of disease is 1 to 121.50, or 0.82 per cent.

Excluding gunshot wounds and deaths therefrom, the proportion of cases treated to the number of troops is 2.59 to 1; of deaths to troops, 1 in 54, or 1.85 per cent; and of deaths to cases of disease, 1 in 139.85, or 0.71 per cent.

* In consequence of the representations made by the Surgeon General to the Department of War, in regard to the extreme unhealthfulness of Fort Thorn, it was abandoned. R. H. C.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	13,783		12,235		13,069		14,693		13,445			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris congestiva	0	0	0	0	2	0	2	2	4	2	1 in 2	0.3
Febris continua communis	58	0	43	0	69	0	57	1	227	1	1 in 227	16.8
Febris intermittens quotidiana	322	0	273	0.	991	0	936	1	2,522	1	1 in 2,522	187
Febris intermittens tertiana	276	0	364	0	562	0	494	0	1,696	0	0 in 1,696	126
Febris intermittens quartana	3	0	11	0	6	0	5	0	25	0	0 in 25	1.8
Febris remittens	126	0	145	0	422	2	480	0	1,173	2	1 in 586	87
Febris typhus et typhoides	13	6	7	2	36	10	22	6	78	24	1 in 3.2	5.8
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Total	798	6	843	2	2,088	12	1,996	10	5,725	30	1 in 191	425

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	13,783		12,235		13,069		14,693		13,445			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Diarrhœa	735	5	781	3	1,232	3	1,154	7	3,902	18	1 in 217	290
Dysenteria acuta	136	1	181	2	215	3	225	3	757	9	1 in 84	56
Dysenteria chronica	17	6	25	2	40	4	37	2	119	14	1 in 8.5	8.8
Enteritis	2	2	5	0	6	0	6	3	19	5	1 in 4	1.4
Hepatitis acuta	8	1	7	0	9	0	3	0	27	1	1 in 27	2
Hepatitis chronica	8	1	4	0	5	0	1	0	18	1	1 in 18	1.3
Obstipatio	229	0	238	0	274	0	195	0	936	0	0 in 936	69
All other diseases of this class	293	5	258	4	385	1	342	1	1,278	11	1 in 116	95
Total	1,428	21	1,499	11	2,166	11	1,963	16	7,056	59	1 in 119	524

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	13,783		12,235		13,069		14,693		13,445			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Bronchitis acuta et chronica	143	2	89	1	34	0	88	1	354	4	1 in 88.5	26
Cartarrhus	1,094	0	578	0	255	1	997	0	2,924	1	1 in 2,924	217
Phthisis pulmonalis	8	2	8	1	6	0	3	1	25	4	1 in 6.2	1.8
Pleuritis	68	1	64	0	49	0	57	0	238	1	1 in 238	17.7
Pneumonia	59	11	45	10	24	1	39	7	167	29	1 in 5.7	12.4
All other diseases of this class	50	2	36	0	17	0	29	0	132	2	1 in 66	9.8
Total	1,422	18	820	12	385	2	1,213	9	3,840	41	1 in 93	285
Rheumatismus	668	1	486	1	478	2	667	1	2,299	5	1 in 460	171

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN

NEW MEXICO.

ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

FIRST QUARTER.

CLASSES OF DISEASES.	Years	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	5,887.		1,038.		1,499.		1,736.		1,833.		1,799.		13,783.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	28		2		2		12		9		5		58	
	Febris inter. quotidiana	63		1		6		49		40		163		322	
	Febris intermittens tertiana	63		12		14		43		82		62		276	
	Febris intermittens quartana	1		1		1								3	
	Febris remittens	13		9		15		10		25		47		126	
	Febris typhus exanthem	7	5							2	1	4		13	6
	Febris typhus peteroid														
Eruptive fevers	Erysipelas	19	2			1		7		1		3		29	2
	Rubeola														
	Scarlatina														
	Varicella	5												5	
	Variolodes	1												1	
	Cholera Asiatica														
Diseases of the organs connected with the digestive system.	Diarrhœa	203	4	36		105	1	133		128		130		735	5
	Dysenteria acuta	91		5		4		21		23		39	1	136	1
	Dysenteria chronica		6	2				1		6			2	17	6
	Enteritis		1			2					1			2	2
	Hepatitis acuta	3	1	2				2		1				8	1
	Hepatitis chronica			1								2	1	8	1
	Obstipatio	83		11		6		45		50		34		229	
	All other diseases	136	2	16	1	30	1	50	1	42		19		293	5
Diseases of the respiratory system.	Bronchitis, acuta et chronica	36	1	9		13		15	1	32		28		143	2
	Catarrhus	280		69		105		127		226		284		1,094	
	Phthisis pulmonalis	2	2	1		1		1				3		8	2
	Pleuritis	22		1		6		15		8	1	6		68	1
	Pneumonia	18	3	9	1	7	2	6		11	2	8	3	59	11
	All other diseases	25	2	2		5		11		3				50	2
Diseases of the brain and nervous system	Cephalalgia	12		5		19		7		18		3		64	
	Delirium tremens	13	1	4		3		3		3		5		31	1
	Epilepsia	5		1		1				1				8	
	Neuralgia	16		4		9		13		14		5		61	
	All other diseases	12	1	4				2		4		4		26	4
Diseases of the urinary and genital organs.	Gonorrhœa	109		36		20		43		72		74		354	
	Stricturæ urethræ	4						1				4		9	
	Syphilis primitiva	58		18		4		17		18		13		128	
	Syphilis consecutiva	69		6		11		6		34		25		142	
	All other diseases	57		16		13		12		28		19		145	
Diseases of the serous and exhalent vessels.	Ascites			1										1	
	All other diseases	1						1		1		1		7	
Diseases of the fibrous and muscular structures.	Pemio	10		5		18		5		10		43		91	
	Podagra	1												1	
	Rheumatismus	187	1	47		42		113		142		137		668	1
	Fistula	2										1		3	
Abscesses and ulcers	Phlegmon et abscessus	129	2	19		28		63		67		46		352	2
	Ulcus	79		9		30		29		26		17		190	
Wounds and injuries	Ambustio	16		2		1		3		6		1		32	
	Amputatio	2												2	
	Contusio	173	1	19	1	68		108		98		95		591	2
	Fractura	19	1	3		1		7		8		3	1	44	2
	Luxatio	3				3		6		13		2		27	
	Punctio	3						9		7		1		20	
	Subluxatio	41		11		7		28		27		42		159	
	Vulnus morsum	62	1	10		24		24		25		24		169	1
	Vulnus laceratum	64		12	3	13		22		38		35		184	3
	Vulnus punctum	16	1	19		8		7	2	7	1	4		52	4
	Vulnus sclopeticum	59	28	6		6		13		5		11		100	28
Miscellaneous	Debilitas	14	1			8		12		5		2		41	1
	Ebrietas	43		16		7		16		18	1	20		90	1
	Hæmorrhois	25		6		3		6		14		14		68	
	Hernia	5				2		2		3		2		17	
	Morbi cutis	9		2		1		4		5		3		24	
	Morbi oculi	61		13		26		29		26		29		184	
	Scorbutus	36	3	3		5		11		17		25		97	3
	Suicidium								2			1	1	1	3
	All other diseases	108	2	30		56		86		110		97	1	487	3
	Total	2,552	73	537	6	779	4	1,266	6	1,547	7	1,675	10	8,356	106

AMONG THE TROOPS AT POSTS IN NEW MEXICO.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	5,285.		903.		1,477.		1,314.		1,519.		1,737.		12,235.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	24	.....	5	.....	3	.....	6	.....	5	.....	.....	.....	43	.....
	Febris inter. quotidiana	39	.....	2	.....	21	.....	23	.....	49	.....	129	.....	273	.....
	Febris intermittens tertiana	89	.....	2	.....	26	.....	76	.....	64	.....	107	.....	364	.....
	Febris intermittens quartana	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....
	Febris remittens	15	.....	8	.....	13	.....	21	.....	33	.....	25	.....	115	.....
	Febris typhus et typhoides	6	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	7	2
	Febris typhus reterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	5	.....	.....	.....	2	.....	1	.....	.....	.....	7	.....	15	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	258	2	34	.....	111	.....	96	.....	104	.....	158	1	781	3
	Dysenteria acuta	89	1	13	1	10	.....	8	.....	24	.....	44	.....	181	2
	Dysenteria chronica	7	1	5	.....	.....	.....	3	.....	6	1	4	.....	25	2
	Enteritis	.....	.....	.....	.....	1	.....	3	.....	1	.....	.....	.....	5	.....
	Hepatitis acuta	3	.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....	7	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	4	.....
	Obstipatio	80	.....	25	.....	12	.....	30	.....	51	.....	40	.....	238	.....
	All other diseases	117	1	6	1	31	.....	36	1	40	.....	28	1	258	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	28	1	3	.....	8	.....	11	.....	21	.....	18	.....	89	1
	Catarrhus	141	.....	14	.....	59	.....	42	.....	186	.....	133	.....	578	.....
	Phthisis pulmonalis	4	1	.....	.....	.....	.....	3	.....	.....	.....	1	.....	8	1
	Pleuritis	31	.....	3	.....	.....	.....	10	.....	5	.....	12	.....	64	.....
	Pneumonia	17	5	3	.....	5	.....	9	1	5	2	6	2	45	10
	All other diseases	18	.....	1	.....	7	.....	8	.....	2	.....	.....	.....	36	.....
Diseases of the brain and nervous system.	Cephalalgia	21	.....	7	.....	20	.....	15	.....	15	.....	22	.....	100	.....
	Delirium tremens	16	4	3	1	7	.....	7	.....	3	1	2	.....	38	6
	Epilepsia	8	.....	.....	.....	1	.....	2	.....	2	.....	5	.....	18	.....
	Neuralgia	25	.....	3	.....	6	.....	5	.....	8	.....	7	.....	54	.....
	All other diseases	12	2	2	1	4	.....	1	.....	.....	1	3	1	22	5
Diseases of the urinary and genital organs.	Gonorrhœa	156	.....	36	.....	26	.....	96	.....	59	.....	60	.....	433	.....
	Strictura urethræ	11	.....	1	.....	.....	.....	1	.....	9	.....	2	.....	24	.....
	Syphilis primitiva	58	.....	6	.....	2	.....	24	.....	17	.....	11	.....	118	.....
	Syphilis consecutiva	69	1	16	.....	6	.....	17	.....	17	.....	19	.....	144	1
	All other diseases	29	1	8	.....	6	.....	28	.....	23	.....	18	.....	133	1
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	All other diseases	3	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	4	1
Diseases of the fibrous and muscular structures.	Pernio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	3	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	172	.....	29	.....	42	.....	62	.....	82	.....	99	1	486	1
Abscesses and ulcers	Fistula	.....	.....	.....	.....	1	.....	1	.....	1	.....	1	.....	4	.....
	Phlegmon et abscessus	103	.....	8	.....	32	.....	32	.....	41	.....	54	.....	270	.....
	Ulcus	66	.....	5	.....	14	.....	10	.....	17	.....	11	.....	123	.....
Wounds and injuries	Ambustio	13	.....	.....	.....	4	.....	4	.....	2	.....	.....	.....	23	.....
	Amputatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	162	.....	23	.....	49	.....	82	.....	80	.....	71	.....	470	.....
	Fractura	9	.....	1	.....	3	.....	3	.....	1	.....	2	.....	19	.....
	Luxatio	6	.....	1	.....	.....	.....	1	.....	3	.....	2	.....	13	.....
	Punctio	.....	.....	1	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	Sub luxatio	41	.....	8	.....	17	.....	7	.....	19	.....	14	.....	106	.....
	Vulnus incisum	31	.....	8	.....	8	.....	13	.....	11	.....	9	.....	80	.....
	Vulnus laceratum	35	.....	15	.....	7	.....	15	.....	20	.....	22	.....	114	.....
	Vulnus punctum	14	.....	4	.....	5	.....	7	.....	4	.....	8	1	42	1
	Vulnus sclopeticum	21	3	10	1	5	.....	16	.....	5	.....	3	1	60	5
Miscellaneous	Debilitas	11	1	1	.....	6	.....	6	.....	3	.....	8	.....	35	1
	Ebrietas	24	1	7	.....	3	.....	12	.....	15	.....	17	.....	78	1
	Hæmorrhois	46	.....	3	.....	3	.....	7	.....	14	.....	12	.....	85	.....
	Hernia	2	.....	2	.....	7	.....	3	.....	4	.....	1	.....	19	.....
	Morbi cutis	14	.....	.....	.....	7	.....	4	.....	7	.....	5	.....	37	.....
	Morbi oculi	64	.....	14	.....	19	.....	27	.....	59	.....	39	.....	184	.....
	Scorbutus	144	5	10	.....	13	.....	31	.....	7	.....	128	.....	333	5
	Suicidium	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1
	All other diseases	102	4	39	1	73	.....	75	.....	95	.....	100	2	484	7
	Total	2,523	36	397	6	738	.....	1,001	3	1,211	5	1,450	11	7,340	61

ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.												TOTAL.	
	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	6,126.		1,134.		1,379.		1,382.		1,413.		1,635.		13,069.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva					2								2	
	Febris continua communis	54		1		3		7		4				69	
	Febris inter quotidiana	53		10		20		123		520		239		991	
	Febris intermittens tertiana	66		7		92		220		62		96		562	
	Febris intermittens quartana	5				1								6	
	Febris remittens	32	1	48		167		86	1	42		25		402	2
	Febris typhus et typhoides	29	7	1		7	1	2	1	3		3	1	36	10
	Febris typhus ictericodes														
Eruptive fevers	Erysipelas	21				2		2		1		2		28	
	Rubeola														
	Scarlatina														
	Variola	1												1	
	Varioloides	5												5	
Diseases of the organs connected with the digestive system	Cholera Asiatica														
	Diarrhœa	557	2	98		124	1	150		138		165		1,232	3
	Dysenteria acuta	110		24		9		31	1	3		38	2	215	3
	Dysenteria chronica	15	2			6	2	6		3		19		49	4
	Enteritis	5		2				1						6	
	Hepatitis acuta	2		2				4		1				9	
	Hepatitis chronica	1		1		2		1						5	
	Obstipatio	120		18		14		26		53		43		274	
	All other diseases	191		22		29		58		30	1	5		385	1
Diseases of the respiratory system	Bronchitis, acuta et chronica	7		4		5		2		6		10		34	
	Catarrhus	86		17		20		17		69		35	1	245	1
	Phthisis pulmonalis							4		1		1		6	
	Pleuritis	39		2		3		8		3		3		49	
	Pneumonia	8	1	4		2		1		2		7		24	1
	All other diseases	10		3		3				1				17	
Diseases of the brain and nervous system	Cephalalgia	35		3		3		7		25		10	1	85	1
	Delirium tremens	16	1	1		7		6		3	1	10		43	2
	Epilepsia	7								1		1		9	
	Neuralgia	19		6		4		11		11		4		55	
	All other diseases	12	2	3		1		3	1	7		2	1	28	4
Diseases of the urinary and genital organs	Gonorrhœa	176		23		35		59		71		52		419	
	Stricture urethræ	8		1		1				3				13	
	Syphilis primitiva	97		16		7		11		35		13		179	
	Syphilis consecutiva	64		14		4		30		16	1	24		152	1
	All other diseases	60		11		17		23		49		24	1	184	1
Diseases of the serous and exhalent vessels	Ascites	2	1											2	1
	All other diseases	7		1				2				1		11	
Diseases of the fibrous and muscular structures	Pemio					1								1	
	Podagra														
	Rheumatismus	157	1	20		38		83		75	1	105		478	2
Abscesses and ulcers	Fistula	1						1						2	
	Phlegmon et abscessus	160	1	11		33		40		34		29		307	1
	Ulcus	80	1	8		25		18		15		10		156	1
Wounds and injuries	Ambustio	16		3		8		5		4		6		42	
	Amputatio	3		2		4				1				10	
	Contusio	248	1	43		78		61		72		69		572	1
	Fractura	11		3		1		4		2		5		26	
	Luxatio	4				6		6				6		22	
	Punctio			1		6								7	
	Sub luxatio	48		12		3		14		23		13		113	
	Vulnus morsum	56		19		13		19		14		4		124	
	Vulnus laceratum	48	1	9		9		10		20		19		115	1
	Vulnus punctum	23	1	6		5		10		4		9		57	1
	Vulnus scloperium	37	2	4	1	5		19		8		3		76	3
Miscellaneous	Debilitas	18		1		7		11		2		4		43	
	Ebrietas	42		8		3		16		25		24		119	
	Hæmorrhois	44		6		6		11		12		6		85	
	Hernia	7				3				6		1		17	
	Morbi cutis	12		4		4		1		11		13		45	
	Morbi oculi	63		29		23		35		29		52		221	
	Scorbutus	80	2	18		4		19		5		12		193	2
	All other diseases	149	2	57	1	59		89	2	88		84	1	526	6
	Total	3,195	29	598	2	931	4	1,392	6	1,605	4	1,416	8	9,140	53

AMONG THE TROOPS AT POSTS IN NEW MEXICO.

CLASSES OF DISEASES.		FOURTH QUARTER.												TOTAL.	
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	6,195.		1,338.		1,810.		1,651.		1,915.		1,781.		14,693.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva							1	1	1	1			2	2
	Febris continua communis	41	1	4		1		11						57	1
	Febris inter. quotidiana	103	1	71		51		107		332		272		936	1
	Febris intermittens tertiana	87		27		5		152		149		74		494	
	Febris intermittens quartana							5						5	
	Febris remittens	68		72		184		66		80		10		480	
	Febris typhus et typhoides	10	5			3		1	1	1		7		22	6
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	31	3	2		2				2		1		38	3
	Rubeola														
	Scarlatina														
	Variola	6		2										8	
	Variolordes	9												9	
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	513	6	86		193		145		113		104	1	1,154	7
	Dysenteria acuta	139	2	9		24		29		22	1	12		225	3
	Dysenteria chronica	25	1	1		1		6	1	4				37	2
	Enteritis	2	1	2	1			2	1					6	3
	Hepatitis acuta	1								1		1		3	
	Hepatitis chronica	1												1	
	Obstipatio	86		7		18		25		31		28		195	
	All other diseases	144		26		43		29	1	38		62		342	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	20	1	10		6		15		28		9		88	1
	Catarrhus	350		59		171		136		159		122		997	
	Phthisis pulmonalis	2				1					1			3	1
	Pleuritis	29		2		9		7		5		5		57	
	Pneumonia	11	3	4	2	8		6	1	8	1	2		39	7
	All other diseases	13		6		5		1		1		3		29	
Diseases of the brain and nervous system.	Cephalalgia	24		12				8		4		8		56	
	Delirium tremens	15		5		3		4	1	2		3	1	32	2
	Epilepsia	7	2	2		2		5		1		1	1	18	3
	Neuralgia	16		4		11		15		8		5		59	
	All other diseases	15	3	2	1	18		3	1	1		3		42	5
Diseases of the urinary and genital organs.	Gonorrhœa	165		24		34		63		67		62		415	
	Strictura urethræ	4				4				3		3		14	
	Syphilis primitiva	86		22		9		14		13		13		157	
	Syphilis consecutiva	71		9		2		20		31		26		159	
	All other diseases	55		14		13		15	1	50		21	2	168	3
Diseases of the serous and exhalent vessels.	Ascites	1		1										2	
	All other diseases	3				1	1			4		1		9	1
Diseases of the fibrous and muscular structures.	Pernio	39		15		10		3		6		16		89	
	Podagra	1												1	
	Rheumatismus	231		34		65		107	1	94		136		667	1
Abscesses and ulcers	Fistula	3						1						4	
	Phlegmon et abscessus	193	1	30		63		50		47		37		420	1
	Ulcus	81		23		17		33		12		5	1	171	1
Wounds and injuries	Ambustio	12		2		3		7		4		4		32	
	Amputatio	3				1								4	
	Contusio	298		69		101		107		102	1	84		761	1
	Fractura	18	1	3		5		8		5	1	1	1	53	3
	Luxatio	8		4		8		1		4		2		27	
	Punctio					1		1		1				3	
	Sub luxatio	45		16		4		11		20		28		124	
	Vulnus morsum	68		19		27		23		22		20		179	
	Vulnus laceratum	73		16		15		33		28		26		191	
	Vulnus punctum	18	2	4		4		9		14	1	3		52	3
	Vulnus sclopeticum	12	1	3		13	2	13		8		8	1	57	4
Miscellaneous	Debilitas	12		7		13		5		4		6		47	
	Ebrietas	35		9		8	1	24		20		12		108	1
	Hæmorrhois	47		6		12		15		10		13		103	
	Hernia	7		2		10		8		6				33	
	Morbi cutis	10		1		3		1		1		3		19	
	Morbi oculi	79		10		20		38		30		15		192	
	Scorbutus	40		1		9		11		17		17		95	
	All other diseases	129	1	38		56		135	1	88		62		499	2
	Total	3,597	35	797	4	1,290	4	1,535	11	1,702	7	1,359	8	10280	69

CALIFORNIA.

SOUTHERN DIVISION.

Following the plan adopted in the statistical report of 1856, viz: that of classifying the military stations into regions having similar climatological features, the posts on the Pacific slope will be considered in three subdivisions—Southern, Middle, and Northern. The first two include the whole State of California, the Southern being all that portion lying south of the thirty-seventh parallel of latitude, and the Middle the portion north of that line. The Northern Division embraces the State of Oregon and Washington Territory.

In the southern division the troops have been stationed, during the five years ending January 1, 1860, at Forts Yuma, Mojave, Tejon, Miller, and at New San Diego.

For the medical topography and diseases of Fort Yuma, San Diego, Fort Miller, and of Monterey, and other stations in this region that were formerly occupied, the report of 1856 may be consulted.

SANITARY REPORTS—FORT MOJAVE, NEW MEXICO.*

Assistant Surgeon John J. Milhau: July and December, 1859.

Fort Mojave, New Mexico, in latitude 35° 06′ N., longitude 114° 31′ W., is situated on a gravel bluff on the east bank of the Colorado river, four hundred miles from its mouth, near the head of the Mojave valley, and at the point known as "Beale's Crossing."

The post is built on the edge of an elevated desert plateau seventy-five feet above the river. This plateau is hemmed in by rocky and naked hills, and forms a basin fifty miles long by twenty wide. The Colorado river winds its way through this basin, forming the Mojave valley, a bottom thirty-five miles in length, and averaging from one to four miles in width. The whole country, with the exception of this narrow strip of bottom land, is a perfect waste, without either water or vegetation, and the climate is characterized by excessive heat, extreme dryness, strong winds, (hot in summer, cold in winter,) hurricanes, sand storms, and whirlwinds. There is no rainy season; but, during August and July, very heavy showers of rain, with thunder and lightning, fall in the neighboring hills, while but a few drops fall near the site of the post. The bottom lands are covered with cottonwood, mesquite, willow, underbrush, and grass, and are annually overflowed in June. The soil of the bottoms is apparently quite fertile, but in many places is covered with an efflorescence of the salts of soda, which is very destructive to garden vegetation. The Indians raise crops of corn, beans, pumpkins, melons, &c., but they plant in detached patches carefully selected, always tasting the earth before putting in the seed.

The Colorado expedition, under command of Brevet Lieutenant Colonel Hoffman, was broken up on the 26th of April, and companies F and I, Sixth Infantry, and a detachment of Third Artillery, were kept at this point to establish a permanent camp and to build such quarters as

* Although Fort Mojave is geographically in New Mexico, it is so far west of other military stations in that Territory, and so close to the boundary of California, that its statistics have been included in the abstract and tables for Southern California The post is in the military department of California.

the resources of the country would admit of; but the command was ill provided to effect this, being on half rations of flour, beans, and rice, very scantily supplied with clothing and bedding, without tents or paulins, and entirely out of tobacco and of other extras. Notwithstanding these *small* privations, the men went to work cheerfully; and, there being no wagons at the post, they were obliged to carry on their backs for a distance of over one mile nearly all the material required to erect the necessary huts; to add to their difficulties, the river overflowed the bottom and the weather became excessively hot.

The quarters, storehouses, kitchens, guard-house, and the hospital are now completed; they are large brush sheds inclosed with a basket-work of young willows and a thatching of brush, put on in such a manner as to exclude the sun and to admit of a free circulation of air, but with every precaution and keeping the floor constantly wet, the temperature will rise to 120° sometimes.

A fine adobe bake-oven supplied the post with excellent bread.

The roads leading to this place are very bad, passing over rocky and desert wastes deficient in water and grass, rendering it very difficult and enormously expensive to keep it supplied with rations. Owing to the high water and the strong current, the steamboats have failed to reach this point with the men's clothing, the camp and garrison equipage, &c., left at Fort Yuma; consequently the command is at present very ragged and nearly naked, the majority of the men being barefooted.

The extreme heat, the overflowed bottoms, the hard labor in the sun and in water, the half ration, the deficiency of clothing and of bedding, &c., all combined, constituted a prolific cause of disease, which will more than account for the large number of sick during the last two months. The diseases as a general rule yielded readily to the ordinary treatment; but the debilitating effects of the climate and a scorbutic taint pervaded the whole command, and protracted indefinitely the period of convalescence.

FORT MOJAVE,
December, 1859.

In connection with the quarterly report of sick and wounded at this post for the quarter just ending, I have the honor to make the following remarks:

During the quarter the troops have been engaged in rebuilding the post, and have completed the following buildings, viz: A hospital, consisting of a ward twenty-five feet square, with a dispensary and a storeroom of twelve feet by sixteen each; two sets of men's quarters, each seventy-five feet by twenty-five, with orderly rooms and storerooms; four sets of officers' quarters, and a guard-house; all of which are now occupied. The houses are built of cottonwood pickets, placed upright, and chinked with mud, with roofs and floors of dirt, making comfortable temporary quarters for this climate.

The privations and the diseases incidental to the establishment of this post, together with the extreme and long continued hot weather, produced an enfeebled condition of health in the whole command, rendering the troops obnoxious to disease, and peculiarly sensitive to the effects of a low temperature; hence, when in October and November the thermometer fell, though only to 32°, the sick report was greatly increased, especially by cases of affections of the bowels. The too early occupation of the new barracks was another fruitful cause of disease, although weeks were allowed for these quarters to dry, and large fires were kept up day and night, still a great deal of moisture must have remained latent in the walls and in the floors, and its gradual evaporation after occupation operated as the exciting cause of dysentery and of diarrhœa in those whose constitutions had been enfeebled by the above mentioned causes. These cases presented a marked tendency to prostration and to relapse, yielding reluctantly to treatment. Of the four deaths, three occurred in individuals already prostrated by previous disease, and the remaining one in an old man, naturally weak.

Now that the troops are well sheltered and properly clad, and that the post will hereafter be adequately supplied with provisions, the health of the command must improve.

Since friendly relations have been established with the Mojave Indians, venereal diseases have commenced to appear in the command, and, judging from the loose and mercenary manners of these Indians, I fear that these diseases will form a large class in future sick reports.

Venereal existed in the Mojave nation prior to the establishment of this post, and was introduced among them in their intercourse with the Yuma Indians.

DISEASES.

The abstract and tables for Southern California cover a period of eleven years, from January, 1849.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	4,015	2,033	12	506	3
Second quarter	4,167	2,419	23	580	5.5
Third quarter	3,829	2,084	18	544	4.7
Fourth quarter	3,448	1,603	17	465	5
Annual ratio	3,865	8,139	70	2,105	18

The annual proportion of cases of disease to the number of officers and men in this region is 2.10 to 1, and the corresponding ratio of deaths 1 in 55.25, or 1.8 per cent. The proportion of deaths to cases treated is 1 to 116.27, or 0.86 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,015		4,167		3,829		3,448		3,865			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Febris continua communis	18	1	29	0	32	0	21	1	100	2	1 in 50	25.8
Febris intermittens quotidiana	88	0	97	0	89	0	46	0	320	0	0 in 320	82.7
Febris intermittens tertiana	36	0	45	0	24	0	12	0	117	0	0 in 117	30.2
Febris intermittens quartana	3	0	0	0	0	0	6	0	9	0	0 in 9	2.3
Febris remittens	19	0	32	0	49	0	8	1	108	1	1 in 108	28
Febris typhus et typhoides	2	0	34	6	7	2	2	2	45	10	1 in 4.5	11.3
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Total	166	1	237	6	201	2	95	4	699	13	1 in 54	180.8

In the quarter ending June 30, 1858, there were at Fort Yuma, twenty-three cases of febris typhoides, of which three proved fatal, in a command of two hundred and thirty officers and enlisted men. In respect to this disease, Assistant Surgeon George Hammond made the following report:

"The unusual mortality among the troops at this post during the past quarter is attributable to but one cause, viz: their transfer from a comparatively cold climate to one so much warmer and more debilitating, just at the commencement of the warm season. In the latter part of February, of this year, there arrived here about one hundred *recruits*, all or most of them enlisted in the East, sent out from there in winter, and immediately forwarded to a station where existed a temperature then almost as great as ever occurs in the countries from which they came. This could not have failed to produce much sickness.

"In April, two companies, one just from the mild or cool coast of Oregon, the other from the mild and equable climate of San Diego, were marched across the desert, where had already commenced the burning heat of summer, to this post. The latter company (I, Third Artillery) had been here previously, but in it were many new men who had not been here before. It has been among these recruits and new comers that all the cases of typhoid fever have occurred. Of the twenty or more recruits who were brought here in November last, no cases of the kind occurred. It is reasonable then to suppose that the introduction of these men, at the season referred to, has been the sole cause of the unusual prevalence of this disease. The quarters have been, as heretofore, clean and commodious. The fare, also, plentiful and healthy as usual. The duties of the troops, also, as formerly, the ordinary duties of soldiers in garrison, and their habits the same as usually found among soldiers."

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Strength	4,015		4,167		3,829		3,448		3,865			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in 0	0
Diarrhœa	202	3	339	2	277	2	204	3	1,022	10	1 in 102	264
Dysenteria acuta	39	0	89	2	54	2	21	1	203	5	1 in 51	52.5
Dysenteria chronica	6	0	3	3	3	0	8	1	20	4	1 in 5	5.1
Enteritis	2	1	4	1	3	0	2	1	11	3	1 in 4	2.8
Hepatitis acuta	2	0	1	0	1	0	1	0	5	0	0 in 5	1.2
Hepatitis chronica	1	0	0	0	1	0	3	0	5	0	0 in 5	1.2
Obstipatio	97	0	158	0	135	0	90	0	480	0	0 in 480	124
All other diseases of this class	56	0	113	1	99	0	76	0	344	1	1 in 344	89
Total	405	4	707	9	573	4	405	6	2,090	23	1 in 91	540

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.			
Strength	4,015		4,167		3,829		3,448		3,865			
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
Bronchitis, acuta et chronica	19	0	23	0	6	0	17	1	65	1	1 in 65	16.8
Catarrhus	246	0	156	0	109	0	174	0	685	0	0 in 685	177
Phthisis pulmonalis	10	2	3	3	2	1	4	3	19	9	1 in 2.1	4.9
Pleuritis	17	0	15	1	10	0	8	0	50	1	1 in 50	12.9
Pneumonia	3	2	8	0	1	1	5	0	17	3	1 in 6	4.4
All other diseases of this class	4	0	6	0	3	0	4	0	17	0	0 in 17	4.4
Total	299	4	211	4	131	2	212	4	853	14	1 in 61	220
Rheumatismus	132	2	111	0	87	0	120	0	450	2	1 in 225	116

NORTHERN DIVISION.

The troops in the Northern Division of California have more or less permanently occupied the following stations: Presidio de San Francisco, Alcatraz Island, Benicia Barracks, Forts Humboldt, Crook, Reading, Gaston, and Ter-Waw.

The medical topography of several of these stations has been described in the statistical report of 1856. The only sanitary reports of special interest from stations in this region are the following from Forts Crook and Jones:

SANITARY REPORT—FORT CROOK.

Assistant Surgeon C. G. Hollenbush: September, 1857.

Fort Crook is situated at an elevation of about 3,500 feet (I have no means of determining the true altitude) above the level of the sea, in a prairie valley of some ten miles in extent, and surrounded on all sides by mountains of considerable height.

Two rivers flow through the valley, the one, Pitt river, entering through a deep cañon, in the east, flows southward; the other, Fall river, heads, by two very large springs, in the northern part, flows southeast and falls into Pitt river just before leaving the valley. In the northeastern part is a lake, of several miles in extent, that communicates with Fall river by means of a deep slough.

In comparison to the extent of the surface of water in the valley there is very little that is of a marshy character; and what marsh there is, I think, is rendered harmless, in a sanitary point of view, by the uncommon freshness of the water. The post is located within the edge of a pine wood, one hundred yards from the bank of Fall river, and at a distance of eight miles above its junction. The river rises, by two springs, two miles above the post, abruptly from among a mass of pedrigal. One of the springs is an object of curiosity and of singular beauty, evidently having been at one time the crater of a volcano. It is of circular form, some thirty feet in diameter, as many in depth, and pours its water over the top in quite a river, which is *very cold* and almost as transparent as the air. The climate here is temperate, salubrious, very pleasant, and, to all prospect, very healthy. Since our arrival there has not been any rain within the valley sufficient to lay the dust, although on three different occasions severe thunder showers

have passed over our heads and all around us, raining heavily upon the mountains. For some days after these rains the air would be quite cold, and I have been informed that in the adjoining valleys the rains were accompanied by severe hail storms, followed by heavy frost. During July and August the sun beats very hot in the middle of the day; but Mount Shasta, that, at a distance of some sixty miles to the northwest, rears its snowy peak among the clouds, sends us, in the afternoon, a cool breeze from that quarter, so that, instead of the cold, moist wind of the coast, or the scorching air of the Sacramento valley, there is here a delightful medium. The nights are cool throughout the summer. If there will be any one prevailing disease, it will be a mild form of intermittent fever. The cases that are upon the "sick report" can scarcely be attributed to this place, but would rather attribute their origin to the time the company of dragoons was quartered at Fort Reading. That, however, it may have an origin here is proved by the case of an Indian girl who was taken prisoner and who, some days after her arrival, was taken with a mild intermittent. The company of dragoons is employed in building quarters, the company of Fourth Infantry in scouting against the Indians, and all are, as yet, quartered in tents. In hospital accommodations I am confined to a hospital tent, using it both for dispensary and ward purposes. In a few weeks the hospital will be finished, in which there will be four rooms, each sixteen feet square, and a wide hall, extending through the building, thus giving me ample rooms for dispensary, kitchen, and two wards; and if I receive for hospital steward whom I had the honor to recommend to you, the hospital arrangements for the post will be in an excellent condition.

The commissary stores of the post being of very good quality and supply, consequently, the diet of the men is good. The water is unsurpassed, being supplied by the spring spoken of above.

Clothing is ample, and the general cleanliness of the men very good. Intemperance is more than ordinarily a prevailing evil.

SANITARY REPORT—FORT JONES.

Assistant Surgeon Charles C. Keeney: October, 1856.

In latitude 41° 35′ 56″ N., longitude 122° 52′ W., and on the eastern slope of the "Coast range" of mountains, extending eastwardly towards the Sierra Nevada, is an oval basin, thirty miles long by six wide, known as Scott's Valley. The southern as well as the northern extremity of this valley are bounded by two high ranges of mountains, the connecting links between the Coast range and the Sierra Nevada. That range bounding the northern extremity is a spur of the Coast range, while that bounding the southern extremity is Scott's mountain, being some 8,000 feet above the level of the ocean, while the valley has an altitude of nearly 3,000 feet above the level of the sea.

From a bird's-eye view of the geological characteristics of the surrounding country, one is led to believe that its origin is of rather recent date. On some of the mountains there are fresh appearances of scoriæ, and in the crater of one of the neighboring mountains, sulphurous ebullitions are distinctly visible. The pedrigal at the base of the mountains and in the small valleys appears to have undergone but little change, and is generally covered with an exceedingly young growth of timber. The character of the soil of this valley is principally argillaceous and arenaceous. The former presents a reddish appearance, and holds, in combination, minute pebbles, and the latter is composed chiefly of micaceous matter.

With plenty of moisture and sufficient heat this peculiar soil would bring forth as delicious and luxuriant vegetables and fruits as the richest vegetable mould of the prairie lands of Iowa.

The valley is watered by a small stream that takes its rise in Scott's mountain, meandering through the valley, and finally discharging itself in the Klamath river. The water of this stream, (Scott's river,) as it comes dashing and foaming down the mountain, is cold, clear, and

delicious; but as it winds its way through the valley it takes up the loose soil and becomes impregnated with rank, decomposed, vegetable matter, rendering it exceedingly disagreeable to the taste, as well as depositing on its banks its miasmatic poison, and affording the inhabitants sufficient cause for their autumnal and vernal ailments.

Fort Jones is situated at the northern extremity of the valley, on a gentle slope of the mountain, and in a pine grove; it was established in the fall of 1852 by a company of dragoons. The post is built in the form of a square, with the front opening out on the valley, while the rear is covered by mountains. The soldiers' barracks, and a portion of the officers' quarters, are built of logs—ceiled and plastered externally. The rooms are capacious, well ventilated, and commodious. The commanding officer's and surgeon's quarters are of more recent structure, and are frame buildings. Each set of quarters is separate and distinct from the other, and sufficient ground intervening between each to afford ample room for garrison purposes and for ventilation.

The locality of the post is well adapted to the protection of the inhabitants from Indian depredations, it being the central point, around which roam the fiercest and most warlike bands of Indians that inhabit the Pacific coast.

On the west, extending from the post to the Pacific, and inhabiting the banks of the Klamath river, are from fifteen hundred to two thousand warriors of remarkable physical strength, and of great bravery. It is said of these warriors, that six in ten will measure six feet in height. At the north and in Southern Oregon, within a few days march of this post, were recently the Rogue River Indians, who, in point of bravery, have proved themselves equal to regular troops, man for man. This last tribe, during the past summer, was removed to a reservation in the northern part of Oregon, but should their warlike propensities again become aroused by the usual encroachments of the white man, they will seek their old hunting grounds on Rogue river, and recommence their accustomed depredations on the inhabitants of that valley.

On the east of the post, and within a few days' march, are several thousands of Indians, of less warlike nature, but more treacherous. Among these tribes the Murdocs abound, and are more dreaded by the settlers and emigrants than any other band east of the post. The Murdocs number about eight hundred.

The reservation that this post commands, has had about three hundred and fifty under protection. They are of the Shasta tribe, a tribe that has been humbled and subdued principally by the Murdoc bands. The few that now remain are fast dwindling away, both by disease and by the hand of the white assassin. They are rationed by the government, and their sick attended by the post surgeon. The diseases prevalent among the Indians on this reservation, (as well as on others, as I am inclined to think,) are dysentery and pneumonia.

When Indians are forced on reservations their whole physical and moral natures undergo a complete change. First, it is humiliating and a source of great mortification to an Indian to be deprived of his rifle or arrows, and to be confined to certain limits. He feels himself a prisoner, and deprived of his dearest rights; his spirit is broken; and, with the change of diet and of wearing apparel, and being deprived in a great measure of his natural exercise, disease takes hold of him and he sinks under it. As a general thing, deprive an Indian of his accustomed exercise, and give him plenty of beef and flour, he takes the dysentery; and when he changes his wearing apparel, laying aside the open blanket and putting on the white man's tight coat, and lies down to sleep, his lungs take on disease, and if he does not die with acute pneumonia, his lungs soon become full of tubercles.

Lues venerea, seems to be unknown among the various bands in this vicinity; while in the southern part of this State, on the borders of Mexico, this disease, in all its protean forms, is fast decimating the Indian race. Two causes may be ascribed for this: First, the Spaniards have freely circulated among the southern Indians, from the middle of the sixteenth century to

the present time, and have as freely sown broadcast the seeds of this disease on the soil of the aborigines. Secondly, the old Spaniard seldom visited this northern soil, and if he ever did, this colder and purer climate rendered the virus less infectious, and more readily to give way under the influence of natural causes.

The system of medication that the northern Californian Indian practices differs materially from the common routine of practice of the Indians east of the Rocky mountains. They neither resort to the animal, vegetable, or mineral kingdom for a cure. Their philosophy of disease seems to be based upon the idea that an evil spirit of some dead Indian steals into the body and locates itself, and wherever the pain may be, there this spirit is. Their system of therapeutics is perfectly comparable with their notions of pathology. Their doctors are always females, and none are called to practice except those who are commissioned, as it were, by nature. When a young squaw chances to have a slight periodical hemorrhage from the mouth, or any other part than the natural channel, or, in other words, if she should have vicarious menstruation, she is the one who forever after is destined to heal the sick. The young squaw is not at all covetous of her calling; she dreads her profession, for, on her failure to effect a cure, she loses her life. Her art of medication consists in working herself up into a mesmeric or hysterical condition and then making gentle passes with her hand over the part diseased; and lastly, plunging her fists into the muscles of her prostrate patient as if she really was determined to tear out and expel the dead Indian's evil spirit in good earnest. Then, again, the doctress throws herself into a gladiatorial position, being surrounded by a dozen or more bucks, who assist in the performance by chanting and howling like so many demons; and then she throws herself with her whole might on her subject, clinching the part diseased, and if she is lucky she drags out the evil spirit (with a portion of her patient's skin) and dashes it into a vessel of water, ready for that purpose. If the patient is satisfied that he is relieved of the dead Indian's spirit and the pain, all is right; but if the pain chances to return the poor squaw loses her head under the tomahawk.

From the past and present indications it would seem that the aborigines of this coast are fast becoming extinct; and, in spite of the fostering hand the government extends to them on the reservations, they are, nevertheless, rapidly dwindling away. The Indians on this reservation one year ago numbered about three hundred and fifty, but now no more than one hundred and fifty are left. The two hundred missing have been swept away, mostly, by disease. Not only this band alone has thus been decimated by natural causes, but the same is pretty much the case on all other reservations on this coast and wherever the light of civilization has dawned on the dark forest of the red man. It would seem, from these facts alone, that civilization is incompatible with the habits, customs, and the nature of an Indian. This course of things, however, is only obeying the common law of nature—that the weaker race must bow down and give way to the stronger and more intellectual.

The Indian, by nature, is not capable of following the intellectual pursuits of the white man. Education seems rather to enervate than to strengthen his natural faculties. Education will not instill in the red man notions inconsistent with his own. He cannot be made to believe that the cultivation of the intellect is more conducive to happiness and longevity than his own mode of life. Again, the Indian has no inventive faculty. He cannot be taught the most common uses of the implements of husbandry, (I am speaking of Californian Indians;) or, if he could be made to familiarize himself with such an inclination or desire, it could not be instilled into him to apply them. He is a "child of nature" in the strictest sense of the word, and as such he will die. The Californian Indian has no idea of the "Great Spirit" of other Indians, and cannot be made to believe it. They have no belief in a future existence, and ridicule the very idea of the body being troubled with such a thing as a soul.

From the above facts on the consequences of the advancement of civilization in the Indian territory, it would appear that the time is not far off when the whole aboriginal family will be

crushed under the rapid strides of civilization, and the day not distant when the Indian will only be known in history.

The climate of Fort Jones may be regarded, on the whole, as salubrious. The line of demarkation between each of the four seasons of the year is conspicuously drawn. The fall sets in about the middle of September, and continues with cool nights and warm days until the 1st of December, which is ushered in either by heavy rains or deep snows. This continues, at intervals, until the middle of February, when the hills and valleys are clad in verdure. March and April come and go with warm days and cool nights, and not unfrequently accompanied with frosts. June, July, and August, bring hot days, and, occasionally, a sultry night. The highest point the mercury attains in summer is 98°, and the lowest point in winter, (December,) 18° below zero. The summer is not always attended with a drought as in the southern part of the State. A rain storm, accompanied with thunder and lightning in July and August, is not an unfrequent occurrence.

The most prevalent disease among the troops, as well as the citizens, is intermitting fever in some form. The overflowing of the river banks, with the rank vegetable matter that the water holds in combination, sufficiently accounts for this form of disease.

Conjunctival ophthalmia is the next most prevalent disease among the citizens, and particularly among the miners. The inflammatory action of the conjunctiva is rather of the asthenic order, and but seldom the other tunics of the eye sympathize with this inflamed membrane.

Many causes have been ascribed as to the frequency of this disease in the valley. Some contend that it was brought on by ablutions in alkaline waters, while others maintain that its frequency is ascribable to particles of rock that find their way into the eye during the mining operations. From my own observations, I am inclined to ascribe the frequency of this form of ophthalmia to the peculiar rarified air and reflected light of the valley on the one part, and the sudden transition from darkness to light that the miner is subjected to in his daily avocation.

The miners of this valley are principally engaged in working under ground. First they sink a shaft until they reach the bed rock where the gold is imbedded; they then drift under ground, sometimes for a quarter of a mile, following the gold lead and bed rock; then, at other times, they seek the gulches at the base of the mountains, and when they strike the bed rock they drift in the mountain for hundreds of feet. In these drifts they spend ten hours out of the twelve of daylight, where it is as dark as night. As they emerge from these dark, but rich caverns, the bright, reflected light makes a serious impression on the organ of vision, and when repeated day after day the conjunctiva gives way to disease.

The treatment this form of ophthalmia yields to is very simple. A little mass. hydrarg., combined with small doses of quinine, twice a day, with a weak solution of nitrate of silver, dropped into the eye two or three times a day, generally suffice to restore the eye to a healthy condition in a few days.

In strumous habits, ulcers on the cornea are prone to form in a few days after the inflammation sets in. In this case, with the general treatment above adopted, and with the assistance of an unguent, composed of almond oil and the oxyd of silver, applied to the ulcer twice a day, generally effects a cure in the course of twelve or fifteen days.

It is a notorious fact that when females from the Atlantic States arrive on this coast, those who have been barren for years, and those who have never borne children at all, no sooner become acclimated than the uterine organs assume a new tone, and conception immediately follows. This change of the uterine functions is not temporary, but continuous, and the once sterile female may calculate with the greatest certainty that the end of every eighteen months will bring an offspring.

The American cow, after reaching this coast from the plains, will bring a calf every ten or eleven months, and this calf will bring forth young when two years old. Sheep breed twice a

year, and more frequently bring forth two at each birth than one. Swine have five litters in two years.

If I were to advance an opinion of my own on this great procreative tendency of both man and beast on this coast, I would attribute it in a great measure to this bland and stimulating climate. The climate has certainly the effect, on females who come here, of producing an immoderate action of the catamenial functions; and on man, of arousing his dormant venereal propensities. But I will not attempt to offer any further cause for this, but will leave it for the more scientific.

DISEASES.

The abstracts and tables of statistics for the region now under consideration, Northern California, embrace a period of eleven years, from January, 1849, to January, 1860.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	3,932	2,221	17	562	4.3
Second quarter	3,496	2,334	13	667	3.7
Third quarter	3,874	3,310	105	854	27.1
Fourth quarter	4,110	3,024	44	735	10.7
Annual ratio	3,853	10,889	179	2,826	46.4
Exclusive of cholera		10,729	99	2,784	25.6

The annual proportion of cases of disease to the mean strength of the troops in northern California is 2.82 to 1, and the ratio of deaths 1 to 21.52, or 4.64 per cent. The proportion of deaths to the number of cases of disease is 1 to 60.83, or 1.64 per cent. Exclusive of cholera, the ratio of disease to the number of troops is 2.78 to 1; of deaths, 1 in 38.92, or 2.56 per cent; and the proportion of deaths to cases treated, 1 in 108.37, or 0.92 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	3,932		3,496		3,874		4,110		3,853				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris congestiva	0	0	0	0	1	0	0	0	1	0	0 in	1	0.2
Febris continua communis	3	0	3	1	20	0	3	0	29	1	1 in	29	7.5
Febris intermittens quotidiana	297	0	326	0	852	0	556	1	2,031	1	1 in	2,031	527
Febris intermittens tertiana	172	0	215	0	341	0	241	0	969	0	0 in	969	251
Febris intermittens quartana	8	0	3	0	10	0	3	0	24	0	0 in	24	6.2
Febris remittens	61	0	45	2	115	1	123	0	344	3	1 in	115	89
Febris typhus et typhoides	2	1	0	0	24	10	9	6	35	17	1 in	2	9
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Total	543	1	592	3	1,363	11	935	7	3,433	22	1 in	156	890

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Reduced cases per 1,000 of mean strength.
Strength	3,932		3,496		3,874		4,110		3,853				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	0	0	160	80	0	0	160	80	1 in	2	.....
Diarrhœa	162	3	216	1	456	1	231	6	1,065	11	1 in	97	276
Dysenteria acuta	13	0	46	1	75	0	69	2	203	3	1 in	68	52.6
Dysenteria chronica	3	1	9	0	1	1	1	5	14	7	1 in	2	3.6
Enteritis	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Hepatitis acuta	2	0	1	0	0	0	3	0	6	0	0 in	6	1.5
Hepatitis chronica	0	0	0	0	3	0	6	0	9	0	0 in	9	2.3
Obstipatio	88	0	85	0	119	0	65	0	357	0	0 in	357	92.6
All other diseases of this class	87	1	70	0	100	3	95	1	352	8	1 in	44	91.3
Total	355	5	427	2	914	85	470	17	2,166	109	1 in	20	562
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	2,006	29	1 in	69	520

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Reduced cases per 1,000 of mean strength.
Strength	3,932		3,496		3,874		4,110		3,853				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	11	0	42	0	13	0	18	1	84	1	1 in	84	21.8
Catarrhus	241	0	161	0	118	0	301	0	821	0	0 in	821	213
Phthisis pulmonalis	5	2	7	2	2	2	7	3	21	9	1 in	2.3	5.4
Pleuritis	12	0	9	0	11	0	11	0	43	0	0 in	43	11
Pneumonia	12	1	3	0	1	0	4	0	20	1	1 in	20	5.2
All other diseases of this class	11	0	9	0	6	0	9	1	35	1	1 in	35	9
Total	292	3	231	2	151	2	350	5	1,024	12	1 in	85	265
Rheumatismus	139	0	104	0	112	0	150	0	505	0	0 in	505	131

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN

CALIFORNIA.

No. I. ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	Years	[illegible]		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	1,744.		339.		392.		[illegible].		496.		579.		4,015.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	5	1	..	..	4	..	..	..	9	..	..	..	18	1
	Febris intermittens quotidiana	44	..	7	..	5	..	16	..	5	..	11	..	88	..
	Febris intermittens tertiana	25	..	2	..	3	..	2	..	2	..	2	..	36	..
	Febris intermittens quartana	3	..	..	..	..	..	..	..	..	..	..	..	3	..
	Febris remittens	13	..	..	..	2	..	4	..	..	..	..	..	19	..
	Febris typhoidea (typhus)	..	..	2	..	..	..	..	..	..	..	..	..	2	..
	Febris typhoidea (enteric)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eruptive fevers	Erysipelas	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rubeola	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Scarlatina	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Varicella	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Variola	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Variolois	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Cholera Asiatica	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the organs connected with the digestive system.	Diarrhœa	67	3	12	..	18	..	11	..	51	..	43	..	202	3
	Dysenteria	25	..	..	..	2	..	4	..	5	..	2	..	39	..
	Dysenteria scorbutica	4	..	..	..	..	..	2	..	..	..	..	..	6	..
	Enteritis	..	..	1	1	..	..	1	..	..	..	..	..	2	1
	Hepatitis acuta	1	..	..	..	..	..	..	..	1	..	..	..	2	..
	Hepatitis chronica	..	..	..	..	..	..	..	..	1	..	..	..	1	..
	Odontalgia	22	..	1	..	11	..	12	..	11	..	40	..	97	..
	Affections of the throat	20	..	7	..	7	..	8	..	4	..	10	..	56	..
Diseases of the respiratory system.	Bronchitis, acuta et chronica	3	..	1	..	2	..	1	..	2	..	10	..	19	..
	Catarrhus	101	..	10	..	21	..	35	..	46	..	33	..	246	..
	Phthisis pulmonalis	7	1	..	..	..	..	2	1	1	..	..	..	10	2
	Pleuritis	..	..	2	..	9	..	1	..	2	..	3	..	17	..
	Pneumonia	2	1	..	..	..	..	1	1	..	..	..	..	3	2
	All other diseases	1	..	..	..	..	..	..	..	..	..	..	..	4	..
Diseases of the brain and nervous system.	Cephalalgia	1	..	..	..	2	..	3	..	1	..	3	..	11	..
	Delirium tremens	6	..	4	..	1	..	8	..	5	..	1	..	25	..
	Epilepsia	1	..	..	..	1	..	1	..	..	..	2	..	5	..
	Neuralgia	3	..	1	..	1	..	1	..	..	..	..	..	6	..
	All other diseases	9	..	1	..	..	..	2	..	1	..	..	..	13	..
Diseases of the urinary and genital organs.	Gonorrhœa	14	..	10	..	15	..	20	..	17	..	36	..	121	..
	Stricture urethræ	2	..	..	..	..	..	..	..	..	..	1	..	3	..
	Syphilis primaria	13	..	3	..	7	..	9	..	9	..	25	..	66	..
	Syphilis consecutiva	14	..	..	..	1	..	6	..	8	..	1	..	30	..
	All other diseases	21	..	..	..	7	..	9	..	8	..	14	..	59	..
Diseases of the serous and exhalent vessels.	Ascites	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	All other diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diseases of the fibrous and tendinous structures.	Pertussis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Rheumatismus	53	2	7	..	4	..	20	..	26	..	22	..	132	2
	Fistula	1	..	..	..	..	..	2	..	..	..	..	..	3	..
Abscesses and ulcers	Phlegmon et abscessus	37	..	9	..	9	..	14	..	10	..	7	..	86	..
	Ulcus	16	..	5	..	1	..	2	..	4	..	13	..	44	..
	Anthrax	10	..	2	..	1	..	1	..	1	..	..	..	15	..
	Anguina	1	..	..	..	..	..	..	..	..	..	..	..	1	..
Wounds and injuries	Contusio	28	..	10	..	8	..	21	..	15	..	28	..	107	..
	Fractura	3	..	1	..	1	..	1	..	..	..	6	..	12	..
	Luxatio	2	..	..	..	1	..	..	..	..	..	..	..	3	..
	Plaga	5	..	..	..	..	..	..	..	..	..	..	..	5	..
	Sub luxatio	6	..	3	..	9	..	9	..	13	..	18	..	54	..
	Vulnus incisum	11	..	2	..	6	..	7	..	6	..	10	..	42	..
	Vulnus lacerum	9	..	3	..	10	..	2	..	4	..	8	..	36	..
	Vulnus punctum	1	..	1	..	1	..	1	..	4	..	..	..	8	..
	Vulnus sclopeticum	1	..	..	..	1	..	1	..	..	1	2	..	8	1
Miscellaneous	Debilitas	3	..	..	..	..	..	1	..	2	..	..	..	6	..
	Ebrietas	3	..	..	..	..	..	..	..	6	..	5	..	14	..
	Hæmorrhois	3	..	..	..	4	..	1	..	..	..	2	..	10	..
	Hernia	3	..	..	..	..	..	..	..	1	..	..	..	4	..
	Morbi cutis	1	..	3	..	2	..	3	..	3	..	9	..	21	..
	Morbi oculi	10	..	2	..	3	..	3	..	10	..	13	..	41	..
	Scrofula	17	..	..	..	..	..	2	..	..	..	1	..	20	..
	Suicidium	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	All other diseases	67	..	4	..	6	..	23	..	25	..	26	..	152	..
	Total	733	8	116	1	182	..	281	2	316	1	405	..	2,033	12

AMONG THE TROOPS AT POSTS IN SOUTHERN CALIFORNIA.

CLASSES OF DISEASES.	SECOND QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,843.		299.		471.		479.		522.		553.		4,167.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	2	.....	.....	.....	12	.....	1	.....	.....	.....	14	.....	29	.....
	Febris inter. quotidiana	50	.....	5	.....	4	.....	14	.....	10	.....	14	.....	97	.....
	Febris intermittens tertiana	33	.....	6	.....	5	.....	1	.....	.....	.....	.....	.....	45	.....
	Febris intermittens quartana	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Febris remittens	6	.....	2	.....	8	.....	3	.....	.....	.....	13	.....	32	.....
	Febris typhus et typhoides	1	.....	4	1	6	2	.....	.....	23	3	.....	.....	34	6
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	1	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	4	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	162	2	12	.....	46	.....	28	.....	23	.....	68	.....	339	2
	Dysenteria acuta	40	.....	.....	.....	10	1	13	.....	17	1	9	.....	89	2
	Dysenteria chronica	.....	.....	1	.....	.....	.....	.....	.....	.....	1	2	2	3	3
	Enteritis	.....	.....	.....	.....	4	1	.....	.....	.....	.....	.....	.....	4	1
	Hepatitis acuta	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio	43	.....	9	.....	22	.....	19	.....	22	.....	43	.....	158	.....
	All other diseases	47	1	9	.....	18	.....	13	.....	8	.....	18	.....	113	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	2	.....	.....	.....	10	.....	.....	.....	.....	.....	11	.....	23	.....
	Catarrhus	85	.....	10	.....	14	.....	17	.....	22	.....	8	.....	156	.....
	Phthisis pulmonalis	.....	1	.....	.....	1	.....	.....	.....	1	1	1	1	3	3
	Pleuritis	10	.....	.....	.....	2	.....	.....	.....	2	.....	1	1	15	1
	Pneumonia	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	8	.....
	All other diseases	3	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	6	.....
Diseases of the brain and nervous system.	Cephalalgia	15	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	20	.....
	Delirium tremens	4	.....	1	.....	.....	.....	4	.....	2	.....	1	.....	12	.....
	Epilepsia	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Neuralgia	6	.....	.....	.....	2	.....	.....	.....	4	.....	2	.....	14	.....
	All other diseases	14	.....	3	.....	3	.....	.....	.....	.....	.....	1	.....	21	.....
Diseases of the urinary and genital organs.	Gonorrhœa	37	.....	10	.....	16	.....	4	.....	9	.....	13	.....	89	.....
	Strictura urethræ	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis primitiva	15	.....	1	.....	1	.....	7	.....	11	.....	1	.....	36	.....
	Syphilis consecutiva	15	.....	2	.....	.....	.....	6	.....	10	.....	3	.....	36	.....
	All other diseases	19	.....	4	.....	4	.....	9	.....	4	.....	8	.....	48	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	1	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	4	1
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....
	Rheumatismus	41	.....	3	.....	9	.....	18	.....	28	.....	12	.....	111	.....
Abscesses and ulcers	Fistula	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Phlegmon et abscessus	65	.....	8	.....	16	.....	9	.....	20	.....	9	.....	127	.....
	Ulcus	19	.....	1	.....	6	.....	7	.....	1	.....	6	.....	40	.....
Wounds and injuries	Ambustio	4	.....	1	.....	1	.....	.....	.....	4	.....	3	.....	13	.....
	Amputatio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	38	.....	3	.....	4	.....	13	.....	11	.....	10	.....	79	.....
	Fractura	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
	Luxatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Punitio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Sub-luxatio	10	.....	3	.....	5	.....	7	.....	7	.....	15	.....	47	.....
	Vulnus incisum	7	.....	1	.....	3	.....	3	.....	2	.....	6	.....	22	.....
	Vulnus laceratum	13	.....	1	.....	2	.....	5	.....	6	.....	9	.....	36	.....
	Vulnus punctum	5	.....	.....	.....	3	.....	2	.....	3	.....	.....	.....	13	.....
	Vulnus sclopeticum	3	1	.....	.....	.....	.....	.....	.....	1	.....	1	.....	5	1
Miscellaneous	Debilitas	4	.....	.....	.....	.....	.....	1	.....	2	.....	8	.....	15	.....
	Ebrietas	4	.....	4	.....	.....	.....	1	.....	6	.....	1	.....	16	.....
	Hæmorrhois	6	.....	3	.....	4	.....	2	.....	6	.....	3	.....	24	.....
	Hernia	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
	Morbi cutis	6	.....	.....	.....	3	.....	7	.....	4	.....	4	.....	24	.....
	Morbi oculi	29	.....	3	.....	6	.....	4	.....	7	.....	15	.....	64	.....
	Scorbutus	27	.....	.....	.....	45	.....	1	.....	.....	.....	29	.....	102	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	114	1	6	.....	11	.....	31	.....	39	.....	22	1	223	2
	Total	1,029	7	116	1	314	4	255	.....	317	6	388	5	2,419	23

No. 1.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,591.		355.		470.		517.		348.		548.		3,829.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	5	.....	6	.....	12	.....	.....	.....	6	.....	3	.....	32	.....
	Febris inter. quotidiana	57	.....	5	.....	4	.....	5	.....	2	.....	16	.....	89	.....
	Febris intermittens tertiana	17	.....	1	.....	2	.....	.....	.....	.....	.....	4	.....	24	.....
	Febris intermittens quartana	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Febris remittens	21	.....	4	.....	8	.....	2	.....	.....	.....	14	.....	49	.....
	Febris typhus et typhoides	1	1	5	.....	.....	.....	.....	.....	1	1	.....	.....	7	2
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa	120	1	46	.....	37	.....	22	.....	10	.....	42	1	277	2
	Dysenteria acuta	13	.....	8	1	14	.....	4	.....	2	.....	13	1	54	2
	Dysenteria chronica	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
	Enteritis	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis acuta	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Obstipatio	39	.....	19	.....	27	.....	17	.....	10	.....	23	.....	135	.....
	All other diseases	39	.....	14	.....	11	.....	12	.....	4	.....	19	.....	99	.....
Diseases of the respiratory system.	Bronchitis, acuta et chronica	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	6	.....
	Catarrhus	47	.....	17	.....	6	.....	15	.....	14	.....	10	.....	109	.....
	Phthisis pulmonalis	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1
	Pleuritis	5	.....	.....	.....	2	.....	1	.....	2	.....	.....	.....	10	.....
	Pneumonia	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	3	.....
Diseases of the brain and nervous system.	Cephalalgia	19	.....	.....	.....	3	.....	.....	.....	1	.....	.....	.....	23	.....
	Delirium tremens	7	.....	5	.....	2	.....	6	.....	.....	.....	.....	.....	20	.....
	Epilepsia	1	1	2	.....	.....	.....	.....	.....	.....	.....	1	.....	4	1
	Neuralgia	13	.....	1	.....	4	.....	.....	.....	1	.....	8	.....	27	.....
	All other diseases	3	1	3	.....	5	2	.....	.....	.....	.....	2	.....	13	3
Diseases of the urinary and genital organs.	Gonorrhœa	59	.....	5	.....	5	.....	4	.....	1	.....	7	.....	72	.....
	Stricture urethræ	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	3	.....
	Syphilis primitiva	15	.....	.....	.....	2	.....	5	.....	7	.....	10	.....	39	.....
	Syphilis consecutiva	6	.....	.....	.....	1	.....	2	.....	2	.....	2	.....	13	.....
	All other diseases	13	.....	6	.....	2	.....	2	.....	8	.....	2	.....	33	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
Diseases of the fibrous and muscular structures.	Perinæ	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	24	.....	15	.....	16	.....	10	.....	11	.....	11	.....	87	.....
Abscesses and ulcers	Fistula	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Phlegmon et abscessus	74	.....	14	.....	22	.....	18	.....	12	.....	39	.....	179	.....
	Ulcus	21	.....	7	.....	.....	.....	11	.....	3	.....	12	.....	54	.....
Wounds and injuries	Ambustio	1	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	4	.....
	Amputatio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Contusio	44	.....	10	.....	21	.....	22	.....	7	.....	19	.....	123	.....
	Fractura	2	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	4	.....
	Luxatio	2	.....	1	.....	.....	.....	1	.....	.....	.....	2	.....	6	.....
	Punctio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Subluxatio	8	.....	5	.....	5	.....	4	.....	3	.....	6	.....	31	.....
	Vulnus incisum	11	.....	4	.....	4	.....	1	.....	1	.....	8	.....	29	.....
	Vulnus laceratum	6	.....	1	.....	7	.....	2	.....	.....	.....	8	.....	24	.....
	Vulnus punctum	5	.....	1	1	2	.....	.....	.....	1	.....	5	.....	14	1
	Vulnus sclopeticum	1	.....	.....	.....	1	.....	3	1	1	.....	.....	.....	6	1
Miscellaneous	Debilitas	20	1	.....	.....	.....	.....	1	.....	3	.....	12	.....	36	1
	Ebrietas	3	.....	5	.....	2	.....	1	.....	1	.....	4	.....	16	.....
	Hæmorrhois	7	.....	3	.....	1	.....	.....	.....	1	.....	8	.....	20	.....
	Hernia	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Morbi cutis	10	.....	1	.....	26	.....	2	.....	.....	.....	14	.....	53	.....
	Morbi oculi	17	.....	1	.....	5	.....	9	.....	4	.....	9	.....	45	.....
	Scorbutus	6	1	.....	.....	1	.....	12	.....	3	.....	6	.....	28	1
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	79	2	10	.....	6	.....	28	.....	18	.....	23	.....	164	2
	Total	847	10	227	2	275	2	225	1	142	1	368	2	2,084	18

AMONG THE TROOPS AT POSTS IN SOUTHERN CALIFORNIA.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,650.		364.		438.		375.		321.		300.		3,448.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva														
	Febris continua communis	2		5	1	2		2		10				21	1
	Febris inter. quotidiana	26		1		10		7		2				46	
	Febris intermittens tertiana	10		1		1								12	
	Febris intermittens quartana	2		4										6	
	Febris remittens	4			1	3						1		8	1
	Febris typhus et typhoides			2	1						1			2	2
	Febris typhus icterodes														
Eruptive fevers	Erysipelas					1								1	
	Rubeola														
	Scarlatina														
	Variola														
	Varioloides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	99	2	10		28	1	23		20		24		204	3
	Dysenteria acuta	7		3	1	3		6		1		1		21	1
	Dysenteria chronica	3		1								4	1	8	1
	Enteritis			1		1	1							2	1
	Hepatitis acuta									1				1	
	Hepatitis chronica					2		1						3	
	Obstipatio	17		12		25		17		10		9		90	
	All other diseases	24		5		16		9		14		8		76	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	3		2		2			1	10				17	1
	Catarrhus	41		8		47		52		15		11		174	
	Phthisis pulmonalis	1	2	2		1							1	4	3
	Pleuritis	3		1		1		1		1		1		8	
	Pneumonia	4		1										5	
	All other diseases	2				2								4	
Diseases of the brain and nervous system.	Cephalalgia			1		2		1				1		5	
	Delirium tremens	9		3	1	11		5		1		1		30	1
	Epilepsia	4		1		1						1		7	
	Neuralgia	5		2		8								15	
	All other diseases	3	1			1						1	1	5	2
Diseases of the urinary and genital organs.	Gonorrhœa	23		1		8		7		3		6		48	
	Strictura urethræ														
	Syphilis primitiva	15		2		3		8		9		3		40	
	Syphilis consecutiva	5						6		3		1		15	
	All other diseases	18		5		12		3		3		1		42	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases														
Diseases of the fibrous and muscular structures.	Pernio														
	Podagra														
	Rheumatismus	44		12		19		16		22		7		120	
Abscesses and ulcers	Fistula														
	Phlegmon et abscessus	43		11		16		6		8		2		86	
	Ulcus	14		4				7		3		2		30	
Wounds and injuries	Ambustio	3				1		3						7	
	Amputatio														
	Contusio	48		11		20		16		6		9		110	
	Fractura	4												4	
	Luxatio	1		1		1								3	
	Punitio					1								1	
	Sub-luxatio	15		4		6		7		9		3		44	
	Vulnus incisum	10		6		4		4		2				26	
	Vulnus lacceratum	9		2		3		1		9		5		29	
	Vulnus punctum	1		1				1		1				4	
	Vulnus sclopeticum	3		1		1								5	
Miscellaneous	Debilitas	5		2		1		1				1		10	
	Ebrietas	5		8		4		7		1		2		27	
	Hæmorrhois	6		6		3		1		4		4		24	
	Hernia	1												1	
	Morbi cutis	3		3		2						1		9	
	Morbi oculi	10		2		4		7		6		2		31	
	Scorbutus	6				2				6				14	
	All other diseases	30		6		16		17		23		6		98	
	Total	591	5	154	5	295	2	242	1	203	1	118	3	1,603	17

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER													
	YEARS	1849 to 1851.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,518.		395.		276.		459.		593.		691.		3,932.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....
	Febris inter. quotidiana	181	.....	32	.....	41	.....	9	.....	18	.....	16	.....	297	.....
	Febris intermittens tertiana	89	.....	13	.....	14	.....	30	.....	20	.....	6	.....	172	.....
	Febris intermittens quartana	7	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....
	Febris remittens	45	.....	.....	.....	.....	.....	1	.....	8	.....	7	.....	61	.....
	Febris typhus et typhoides	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Rubeola	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variolodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa	88	3	6	.....	6	.....	11	.....	9	.....	42	.....	162	3
	Dysenteria acuta	5	.....	2	.....	2	.....	1	.....	2	.....	1	.....	13	.....
	Dysenteria chronica	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1
	Enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis acuta	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Obstipatio	29	.....	.....	.....	2	.....	8	.....	7	.....	42	.....	88	.....
	All other diseases	11	.....	9	1	3	.....	9	.....	35	.....	20	.....	87	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	11	.....
	Catarrhus	115	.....	13	.....	5	.....	11	.....	24	.....	72	.....	241	.....
	Phthisis pulmonalis	1	1	.....	.....	1	.....	.....	.....	1	1	2	.....	5	2
	Pleuritis	3	.....	.....	.....	3	.....	1	.....	4	.....	1	.....	12	.....
	Pneumonia	5	.....	.....	.....	2	1	1	.....	3	.....	1	.....	12	1
	All other diseases	8	.....	.....	.....	.....	.....	1	.....	.....	.....	2	.....	11	.....
Diseases of the brain and nervous system.	Cephalalgia	4	.....	1	.....	1	.....	.....	.....	4	.....	2	.....	12	.....
	Delirium tremens	24	.....	.....	.....	1	.....	3	.....	3	.....	3	1	34	1
	Epilepsia	2	.....	.....	.....	.....	.....	1	.....	1	.....	1	1	5	1
	Neuralgia	3	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	5	.....
	All other diseases	8	1	.....	.....	2	.....	1	.....	.....	.....	.....	.....	11	1
Diseases of the urinary and genital organs.	Gonorrhœa	5	.....	10	.....	4	.....	8	.....	21	.....	24	.....	72	.....
	Stricture urethræ	2	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3	.....
	Syphilis primitiva	1	.....	5	.....	2	.....	5	.....	9	.....	20	.....	42	.....
	Syphilis consecutiva	11	.....	.....	.....	.....	.....	.....	.....	4	.....	3	.....	18	.....
	All other diseases	6	.....	2	.....	2	.....	3	.....	7	.....	6	.....	26	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Pernio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....	4	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	61	.....	3	.....	9	.....	9	.....	27	.....	30	.....	139	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Phlegmon et abscessus	28	.....	4	.....	5	.....	4	.....	16	.....	21	.....	78	.....
	Ulcus	14	.....	3	.....	4	.....	5	.....	7	.....	9	.....	42	.....
Wounds and injuries	Ambustio	9	.....	.....	.....	1	.....	.....	.....	4	.....	2	.....	16	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	33	.....	10	.....	6	.....	9	.....	18	1	20	.....	96	1
	Fractura	4	.....	1	.....	2	.....	1	.....	1	.....	4	.....	13	.....
	Luxatio	1	.....	.....	.....	.....	.....	.....	.....	2	.....	1	.....	4	.....
	Punctio	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	4	.....
	Sub-luxatio	3	.....	3	.....	1	.....	7	.....	5	.....	21	.....	40	.....
	Vulnus incisum	25	.....	6	.....	2	.....	5	.....	12	.....	13	.....	63	.....
	Vulnus laceratum	2	.....	1	.....	.....	.....	.....	.....	8	.....	10	.....	21	.....
	Vulnus punctum	3	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....	7	.....
	Vulnus sclopeticum	4	.....	1	.....	.....	.....	1	.....	.....	.....	1	.....	7	.....
Miscellaneous	Debilitas	8	.....	.....	.....	4	.....	.....	.....	.....	.....	2	.....	14	.....
	Ebrietas	24	.....	1	.....	5	.....	10	.....	6	.....	19	.....	65	.....
	Hæmorrhois	7	.....	3	.....	2	.....	.....	.....	.....	.....	2	.....	14	.....
	Hernia	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	4	.....
	Morbi cutis	5	.....	1	.....	.....	.....	1	.....	6	.....	4	.....	17	.....
	Morbi oculi	6	.....	4	.....	1	.....	2	.....	4	.....	9	.....	26	.....
	Scorbutus	15	2	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	17	2
	Suicidium	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	54	1	5	.....	9	.....	2	.....	12	.....	24	.....	106	1
	Total	986	11	140	1	143	1	161	.....	312	2	479	2	2,221	17

AMONG THE TROOPS AT POSTS IN NORTHERN CALIFORNIA.

CLASSES OF DISEASES.	SECOND QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,474.		434.		209.		346.		459.		574.		3,496.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	3						1						3	1
	Febris inter. quotidiana	229		41		21		13		11		11		326	
	Febris intermittens tertiana	115		36		7		25		26		6		215	
	Febris intermittens quartana	1		1						1				3	
	Febris remittens	32	1	4	1					8		1		45	2
	Febris typhus et typhoides														
	Febris typhus icterodes														
Eruptive fevers	Erysipelas	1						1						2	
	Rubeola														
	Scarlatina														
	Variola														
	Varioloides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	118	1	27		4		18		20		29		216	1
	Dysenteria acuta	36	1	10										46	1
	Dysenteria chronica	9												9	
	Enteritis														
	Hepatitis acuta	1												1	
	Hepatitis chronica														
	Obstipatio	31		3				5		11		35		85	
	All other diseases	36		4		8		8		10		4		70	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	21		15				3		1		2		42	
	Catarrhus	91		6		6		10		16		32		161	
	Phthisis pulmonalis	4	1	1				1		1			1	7	2
	Pleuritis	3		1				2				3		9	
	Pneumonia	1		1				1						3	
	All other diseases	4		1		1		1		2				9	
Diseases of the brain and nervous system.	Cephalalgia	8		6		1				2		3		20	
	Delirium tremens	9	1	3						2		1		15	1
	Epilepsia	7		1				1				2		11	
	Neuralgia	3		1				1				1		6	
	All other diseases	4	2							1		2		7	2
Diseases of the urinary and genital organs.	Gonorrhœa	27		7				7		22		17		80	
	Strictura urethræ	1		1				1						3	
	Syphilis primitiva	28		7		1		3		12		22		73	
	Syphilis consecutiva	6						1		2		6		15	
	All other diseases	11		3		1				4		4		23	
Diseases of the serous and exhalent vessels.	Ascites		1												1
	All other diseases	1								1				2	
Diseases of the fibrous and muscular structures.	Pernio	3												3	
	Podagra														
	Rheumatismus	44		6		4		14		16		20		104	
Abscesses and ulcers	Fistula	4												4	
	Phlegmon et abscessus	56		8		5		11		18		9		107	
	Ulcus	12		5		3		3		5		9		37	
Wounds and injuries	Ambustio	5		1				1		3		3		13	
	Amputatio									1				1	
	Contusio	53		15		12		15		18		21		134	
	Fractura	4				2						1		7	
	Luxatio			3				1		1				5	
	Punitio			4										4	
	Sub luxatio	11		4				3		6		8		32	
	Vulnus incisum	11		9		6		8		4		7		45	
	Vulnus laceratum	6						2		6		13		27	
	Vulnus punctum											1		1	
	Vulnus sclopeticum	2		2		1		1				2		8	
Miscellaneous	Debilitas	8						2		3		2		15	
	Ebrietas	25		4				5		7		15		56	
	Hæmorrhois	11		2				3		5		2		23	
	Hernia	1						2				1		4	
	Morbi cutis	7		1		1		1		1		4		15	
	Morbi oculi	30		6		2		7		2		6		53	
	Scorbutus	14				1								15	
	Suicidium		1												1
	All other diseases	72	1	5		4		8		13		12		114	1
	Total	1,220	10	255	1	91		189	1	262		317	1	2,334	13

No. 2.—ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		THIRD QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,699.		472.		480.		404.		361.		458.		3,874.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
	Febris continua communis	18	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	20	.....
	Febris inter. quotidiana	566	.....	203	.....	50	.....	5	.....	13	.....	15	.....	852	.....
	Febris intermittens tertiana	150	.....	77	.....	35	.....	43	.....	22	.....	14	.....	341	.....
	Febris intermittens quartana	1	.....	.....	.....	2	.....	7	.....	.....	.....	.....	.....	10	.....
	Febris remittens	71	1	6	.....	4	.....	7	.....	16	.....	11	.....	115	1
	Febris typhus et typhoides	23	10	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	24	10
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	160	80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	160	80
	Diarrhœa	351	1	18	.....	39	.....	15	.....	9	.....	24	.....	456	1
	Dysenteria acuta	53	.....	10	.....	8	.....	3	.....	1	.....	.....	.....	75	.....
	Dysenteria chronica	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	Enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	.....	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	3	.....
	Obstipatio	72	.....	19	.....	4	.....	3	.....	6	.....	15	.....	119	.....
	All other diseases	51	1	9	1	3	.....	15	.....	6	1	6	.....	100	3
Diseases of the respiratory system.	Bronchitis, acuta et chronica	2	.....	.....	.....	3	.....	6	.....	2	.....	.....	.....	13	.....
	Catarrhus	23	.....	14	.....	12	.....	42	.....	10	.....	12	.....	113	.....
	Phthisis pulmonalis	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	2
	Pleuritis	3	.....	1	.....	.....	.....	3	.....	2	.....	2	.....	11	.....
	Pneumonia	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	All other diseases	1	.....	.....	.....	.....	.....	3	.....	2	.....	.....	.....	6	.....
Diseases of the brain and nervous system.	Cephalalgia	4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
	Delirium tremens	4	1	1	1	2	.....	.....	.....	.....	.....	3	.....	10	2
	Epilepsia	4	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	.....
	Neuralgia	3	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	5	.....
	All other diseases	5	1	2	.....	2	.....	.....	.....	1	.....	1	.....	11	1
Diseases of the urinary and genital organs.	Gonorrhœa	19	.....	8	.....	8	.....	2	.....	5	.....	12	.....	54	.....
	Strictura urethræ	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....
	Syphilis primitiva	11	.....	1	.....	1	.....	10	.....	6	.....	10	.....	39	.....
	Syphilis consecutiva	.....	.....	.....	.....	2	.....	1	.....	4	.....	5	.....	12	.....
	All other diseases	7	.....	3	1	2	.....	1	.....	2	.....	3	.....	18	1
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Diseases of the fibrous and muscular structures.	Pemio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	Rheumatismus	38	.....	8	.....	11	.....	11	.....	20	.....	24	.....	112	.....
Abscesses and ulcers	Fistula	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Phlegmon et abscessus	50	.....	18	.....	10	.....	15	.....	8	.....	13	.....	114	.....
	Ulcus	15	.....	7	.....	6	.....	7	.....	6	.....	3	.....	44	.....
Wounds and injuries	Ambustio	1	.....	1	.....	.....	.....	3	.....	2	.....	3	.....	10	.....
	Amputatio	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	40	.....	16	.....	14	.....	5	.....	8	.....	10	.....	93	.....
	Fractura	4	.....	.....	.....	.....	.....	1	1	3	.....	1	.....	9	1
	Luxatio	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....
	Sub luxatio	8	.....	6	.....	4	.....	5	.....	1	.....	11	.....	35	.....
	Vulnus incisum	12	.....	5	.....	8	.....	6	.....	4	.....	9	.....	44	.....
	Vulnus lacceratum	11	.....	1	.....	.....	.....	.....	.....	2	.....	5	.....	19	.....
	Vulnus punctum	2	.....	2	.....	.....	.....	2	.....	.....	.....	1	.....	7	.....
	Vulnus sclopeticum	5	.....	.....	.....	14	.....	1	.....	.....	.....	1	.....	21	.....
Miscellaneous	Debilitas	9	.....	4	.....	4	.....	.....	.....	1	.....	4	.....	22	.....
	Ebrietas	13	.....	.....	.....	1	.....	11	.....	5	.....	6	.....	36	.....
	Hæmorrhois	10	.....	2	.....	.....	.....	2	.....	1	.....	.....	.....	15	.....
	Hernia	2	.....	1	.....	1	.....	.....	.....	1	.....	1	.....	6	.....
	Morbi cutis	11	.....	3	.....	2	.....	1	.....	.....	.....	2	.....	19	.....
	Morbi oculi	14	.....	3	.....	4	.....	3	.....	2	.....	3	.....	29	.....
	Scorbutus	10	.....	.....	.....	1	.....	5	.....	.....	.....	.....	.....	16	.....
	Suicidium	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
	All other diseases	29	.....	7	.....	9	.....	10	1	5	.....	5	.....	65	1
	Total	1,896	97	458	3	282	.....	258	2	178	1	238	2	3,310	105

AMONG THE TROOPS AT POSTS IN NORTHERN CALIFORNIA.

CLASSES OF DISEASES.		FOURTH QUARTER.													
	YEARS	1849 to 1854.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,706.		365.		403.		506.		499.		631.		4,110.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	2	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....
	Febris inter. quotidiana	387	1	94	.....	30	.....	11	.....	5	.....	29	.....	556	1
	Febris intermittens tertiana	142	.....	25	.....	30	.....	26	.....	5	.....	13	.....	241	.....
	Febris intermittens quartana	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	.....
	Febris remittens	91	.....	.....	.....	.....	.....	.....	.....	4	.....	28	.....	123	.....
	Febris typhus et typhoides	8	5	.....	.....	.....	.....	1	.....	.....	.....	.....	1	9	6
	Febris typhus icterodes	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eruptive fevers	Erysipelas	3	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1
	Rubeola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varioloides	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Diarrhœa	131	5	27	1	11	.....	21	.....	20	.....	21	.....	231	6
	Dysenteria acuta	46	1	7	.....	1	.....	5	1	2	.....	8	.....	69	2
	Dysenteria chronica	1	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5
	Enteritis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis acuta	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Hepatitis chronica	1	.....	.....	.....	.....	.....	2	.....	.....	.....	3	.....	6	.....
	Obstipatio	21	.....	3	.....	6	.....	10	.....	8	.....	17	.....	65	.....
	All other diseases	32	1	12	.....	6	.....	27	2	6	.....	12	1	95	4
Diseases of the respiratory system.	Bronchitis, acuta et chronica	5	.....	.....	1	.....	.....	4	.....	5	.....	4	.....	18	1
	Catarrhus	112	.....	13	.....	18	.....	29	.....	87	.....	42	.....	301	.....
	Phthisis pulmonalis	2	2	.....	.....	.....	.....	3	.....	.....	.....	2	1	7	3
	Pleuritis	2	.....	1	.....	.....	.....	1	.....	6	.....	1	.....	11	.....
	Pneumonia	1	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	4	.....
	All other diseases	4	1	3	.....	.....	.....	2	.....	.....	.....	.....	.....	9	1
Diseases of the brain and nervous system.	Cephalalgia	17	.....	1	.....	.....	.....	1	.....	3	.....	.....	.....	22	.....
	Delirium tremens	17	3	1	.....	1	.....	8	.....	2	.....	1	.....	30	3
	Epilepsia	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	4	.....
	Neuralgia	3	.....	1	.....	.....	.....	.....	.....	.....	.....	2	.....	6	.....
	All other diseases	3	.....	.....	.....	1	.....	1	1	.....	.....	.....	.....	5	1
Diseases of the urinary and genital organs.	Gonorrhœa	14	.....	2	.....	17	.....	4	.....	12	.....	31	.....	80	.....
	Strictura urethræ	1	.....	.....	.....	.....	.....	.....	.....	1	.....	2	.....	4	.....
	Syphilis primitiva	12	.....	2	.....	14	.....	15	.....	7	.....	22	.....	72	.....
	Syphilis consecutiva	1	.....	.....	.....	.....	.....	1	.....	2	.....	5	.....	9	.....
	All other diseases	2	.....	2	.....	5	.....	6	.....	4	.....	9	.....	28	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
	All other diseases	5	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	6	2
Diseases of the fibrous and muscular structures.	Pernio	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	48	.....	10	.....	17	.....	17	.....	27	.....	31	.....	150	.....
Abscesses and ulcers	Fistula	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
	Phlegmon et abscessus	41	.....	14	.....	11	.....	13	.....	16	.....	14	.....	109	.....
	Ulcus	22	.....	3	.....	8	.....	7	.....	4	.....	12	.....	56	.....
Wounds and injuries	Ambustio	8	.....	2	.....	.....	.....	1	.....	2	.....	1	.....	14	.....
	Amputatio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Contusio	60	.....	23	.....	5	.....	12	.....	7	.....	19	.....	126	.....
	Fractura	4	.....	1	.....	1	.....	.....	.....	4	.....	.....	.....	10	.....
	Luxatio	.....	.....	2	.....	1	.....	4	.....	.....	.....	1	.....	8	.....
	Punitio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Sub luxatio	4	.....	1	.....	4	.....	3	.....	11	.....	28	.....	51	.....
	Vulnus incisum	13	.....	7	.....	7	.....	12	.....	7	.....	9	.....	55	.....
	Vulnus laceratum	10	.....	1	.....	4	.....	5	.....	10	.....	11	.....	41	.....
	Vulnus punctum	1	.....	1	.....	1	.....	1	1	2	.....	3	.....	9	1
	Vulnus sclopeticum	2	.....	.....	.....	5	.....	.....	.....	1	.....	2	.....	10	.....
Miscellaneous	Debilitas	27	.....	2	.....	2	.....	.....	.....	2	.....	6	.....	39	.....
	Ebrietas	16	.....	.....	.....	12	.....	13	.....	6	.....	14	.....	61	.....
	Hæmorrhois	5	.....	.....	.....	3	.....	2	.....	5	.....	7	.....	22	.....
	Hernia	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3	.....
	Morbi cutis	5	.....	.....	.....	4	.....	5	.....	4	.....	1	.....	19	.....
	Morbi oculi	17	.....	3	.....	3	.....	3	.....	3	.....	9	.....	38	.....
	Scorbutus	53	4	3	.....	2	.....	3	.....	.....	.....	.....	.....	61	4
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	66	.....	6	.....	2	1	14	.....	12	.....	15	1	115	2
	Total	1,478	32	274	2	233	1	294	5	303	.....	442	4	3,024	44

OREGON, AND WASHINGTON TERRITORY.

The troops serving in Oregon, and in Washington Territory have occupied the following stations more or less permanently during the last five years:

In Oregon, Forts Orford, Lane, Umpqua, Hoskins, Yamhill, and Dalles.

In Washington Territory, Forts Vancouver, Cascades, Simcoe, Walla-Walla, Steilacoom, Townsend, and Bellingham. Troops have also been stationed at Camp Pickett, on San Juan Island; at Harney Depot, Colville Valley; and at Camp Semi-ah-moo, on Semi-ah-moo bay.

The medical topography of several of these posts has been described in the statistical report of 1856, since which date the following sanitary reports have been received from posts in this region:

SANITARY REPORT—FORT ORFORD, OREGON.

Assistant Surgeon Rodney Glisan: July, 1856.

In submitting the following, I beg leave to state that as it is presumed a full medico-topographical report of this station has already been made to the department by my predecessor, it would be unadvisable in the present instance to go into details in regard to the general causes influencing the human system in this vicinity.

I will therefore briefly state that the post is located immediately on the Pacific ocean, at the head of Orford bay, latitude 42° 44′ 27″ N., longitude 124° 28′ 52″ W.

The past three months have been quite inclement and stormy. The quantity of rain that has fallen during the same period is 16.35 inches; the highest degree of temperature 60°, lowest degree 42.33° by Fahrenheit's thermometer. The difference of temperature between the nights and days is very slight. No sudden extreme changes of temperature, therefore, to be enumerated among the causes of disease; no malaria; not a single case of miasmatic fever originating at the post. Those reported are secondary and of foreign origin.

The majority of the men under the head of "mean strength" were only temporary occupants of the post, being usually in from the "field," on escort duty, and lived in tents. The men's quarters, which are good, have been occupied but very little.

The hospital is a new frame building fifty-eight feet long by twenty-six broad, and divided into four rooms, two eighteen by twenty-six feet, the other two sixteen by thirteen. The two larger and one of the smaller are occupied as sick wards; the other as a dispensary. There is a hall of six feet in breadth, separating the smaller from the larger wards. The latter are heated by stoves, and ventilated by air pipes running from the ceiling to a short distance above the roof.

There is a good kitchen attached to the hospital, and a convenient privy.

The majority of the wounded were transported from the field of battle partly by water, and partly by land. Those wounded at the big bend of Rogue river on the 27th and 28th of May, were transported in canoes down Rogue river to its mouth, and thence some on mules and some in litters to the hospital at this post, where they arrived on the 20th of June.

Their wounds are generally severe, being mostly about the arms, shoulders, and head. The change from the warm summer temperature of the mouth of the Illinois, where they were detained for a short time, to the colder and more humid one of the coast, had at first a deleterious effect on the wounded, more especially as they met with a short delay at the mouth of Rogue river, and had insufficient clothing to protect them from the raw and cold atmosphere. Since their arrival in hospital there has been one death, as mentioned in my quarterly report of sick and wounded. The other cases are convalescent, with the exception of two, one of whom, Sergeant Crenian, company E, Fourth Infantry, received a bullet wound about the middle of the right clavicle, which was fractured—the course of the ball not precisely known. The other, Private Carrow, company C, First Dragoons, received a ball at the external edge of the right arm, one and a half inches below and a little posterior to the acromial process, exit just behind the shoulder of the left arm, carrying away the spinous processes of the second and third dorsal vertebræ in its passage. From the symptoms, it is pretty evident that the upper lobes of the right lungs of both these men were pierced by the balls. They are in a very dangerous condition.

SANITARY REPORT—FORT UMPQUA, OREGON.

Assistant Surgeon John J. Milhau: October, 1856.

This post, in latitude 43° 42′ N., longitude 124° 9′ W., is located on the town plat of Umpqua City, on the right bank of the Umpqua river, about two miles and a half above its mouth. It occupies a low sand flat, elevated three feet above high-water mark, and covered with a sparse growth of scrub pines. The garrison fronts to the east, on the river; on the north and west it is shut in by low sand hills; and on the south it is sheltered from the winds by a growth of pines.

The climate is very much like that of Fort Orford, but the position is much less exposed: fogs and cold winds in summer, rain and southerly winds in winter. Owing to a bend in the river, the post is not more than a mile in a direct line from the sea-beach; and the climate is much influenced by this proximity to the ocean, especially as the intervening space is covered with low, naked hills. Passable water is obtained by digging seven feet anywhere on the flat, and very good water can be reached by penetrating seven or eight feet deeper, and going through a bed of clay. It is the intention to make two or three wells fifteen feet deep, and these will give an ample supply of clear and wholesome water. The Umpqua is quite a large stream, several hundred yards wide at this point. Ocean steamers can enter it, and vessels of light draught can run up twenty-five miles, to the head of tide-water. For nearly thirty miles above the mouth the river winds through the Coast range of mountains, and there is scarcely any arable land in that distance; but beyond the range the valley is said to be quite extensive and fertile. By means of the river steamers the post can be plentifully supplied with vegetables and other produce from this valley at a reasonable rate. The river in the proper season abounds in salmon, herring, viviparous perch, and crabs, and during the winter is covered with a great variety of water-fowls. The neighboring mountains and woods are inhabited by large quantities of elk, deer, and bear. There are some tide marshes three miles distant from this place, and, with this exception, I see no local cause that can have any very injurious effect on the health of the troops stationed here, provided they be well sheltered during the rainy season. The facilities of communication and the resources of the country will always enable them to have a variety in diet, and to be furnished with those comforts which are essential to the preservation of health. The principal frame buildings at Fort Orford have been shipped to this place, and are now in process of erection. The storehouse is completed, and before the end of this month the barracks and the hospital will be finished.

SANITARY REPORT—FORT YAMHILL, OREGON.

Assistant Surgeon Rodney Glisan: October, 1856.

This post is located at the northern pass of the Coast Reservation, Oregon Territory, about latitude 45° N., and longitude 124° W. In a direct line it is three quarters of a mile west of the south fork of the Yamhill river, fifteen miles from the Pacific ocean, forty south of the Columbia river, and thirty-five south-southwest of Portland.

It commands the main outlet through the Coast range of mountains from the Indian Coast Reservation to the valley of the Yamhill, which communicates, some twenty miles (in a direct course) from here, with that of the Willamette, the garden spot of Oregon Territory.

Its immediate position is on a gentle western slope, overlooking on the west a small somewhat circular valley, called the Grande Ronde, and terminating on the east and southeast by a bluff, the base of which defines a portion of the border of the Yamhill valley.

With the exception of the latter and the Grande Ronde, the surrounding country is mountainous and thickly timbered, principally with fir, though maple, wild cherry, and alder are to be found at a few points. Near the post and down the Yamhill are some very fine groves of white oak.

The valleys are moderately fertile, possessing an argillaceous soil, covered with a thin vegetable mould. The characteristic rocks are granite, talc, and sandstone; boulders of the former being abundant in the beds of streams.

There are no swamps in the vicinity, at least in summer, and the streams are all rapid, clear, and pure.

Malarious fevers abound, especially in autumn, but I believe to no great extent.

The whole command are at present in tents. It is anticipated that quarters will be completed in two or three months.

SANITARY REPORT—FORT CASCADES, WASHINGTON TERRITORY.

Surgeon Joseph K. Barnes: June, 1858.

Fort Cascades, Washington Territory, is situated on the north bank of the Columbia river, at the lower terminus of the portage around the rapids, in latitude 45° 35′ N., longitude 121° 30′ W. The immediate site of the post is a small plateau on the western slope of the Cascade range, surrounded on all sides by precipitous mountains, open only to the east and west by the river gorge, elevated but a few feet above the highest water-level, and bearing unmistakable marks of having at some remote period been a portion of the river-bed. The Cascade range consists of a belt of from thirty to ninety miles in width of pine and fir-covered ridges, separated from each other by precipitous ravines. A line of isolated volcanic peaks, whose summits are covered with perpetual snow, extending in a direction nearly north and south, marks the western border of the elevated plateau between Pitt river and the Des Chutes valley. Westward from this line, an abrupt slope of mountainous ridges, intersected by enormous cañons, descend to valleys elevated but slightly above the sea level, and extending to the Coast range. Near this watershed are numerous lakes, which find outlets to the east and west through cañons, some of which are two thousand feet in depth.

The Columbia river, flowing west, forces its way through the Cascade range by a pass which is unequaled for the grandeur of its wild and rugged scenery. For more than fifty miles mountains rise abruptly from the water's edge to heights varying from one to three thousand feet. Some, composed of compact basaltic conglomerate, are clothed with the somber verdure of a dense growth of spruces, firs, and pines from base to summit. Others are enormous piles of detached rocks, worn by the storms of many winters into fanciful resemblances of turreted walls, ruinous castles, immense fortresses, and many grotesque or fearful shapes. Occasionally, vertical preci-

pices of columnar basalt are seen rising hundreds of feet above the water's edge, or springing from the river in detached conical masses at short distances from the shore. Here and there these long mountain walls are divided by lateral cañons, the outlets of streams that flow through small valleys, or leap in beautiful and picturesque forms from rock to rock, or dash abruptly in bold torrents from the beetling crags.

At a point nearly equidistant from Fort Vancouver and the Dalles, forty-two miles below the latter, all navigation is interrupted by a series of rapids know as the "Cascades of the Columbia." Precipitous mountains from three to five thousand feet in height close in upon the stream at this point, leaving a channel of not more than nine hundred feet in some places, through which the waters rush with terrific force and velocity. The descent at the upper or great rapid is thirty-four feet in three tenths of a mile; the entire fall at the Cascades, in a distance of four and two tenths miles, is sixty-one feet. This is much increased during the annual freshets in June or July, when the obstruction of the channel acts as a dam, making a greater depth above than below the Cascades. The river is narrow and rapid until, fourteen miles below the Cascades, it passes Cape Horn, a bold bluff of basaltic rock, the last of the foot hills, when it widens out to the magnificent proportions with which it sweeps to the Pacific. From the almost constant prevalence of winds at the point of exit of the river from the mountains, the boatmen have given this name to it, and it is not unusual to pass from clear skies and perfect calm into rain or sleet and violent gales upon reaching the cape.

Experience has shown a great difference in the seasons at points on the east and west side of the Cascade range upon nearly the same latitude. The spring is three weeks earlier at Fort Dalles than at Fort Vancouver, and five weeks earlier than at the mouth of the river. Some fruits and vegetables that come to great perfection at the Dalles, scarcely mature at Fort Vancouver, and cannot be cultivated successfully at Astoria. As it is expected that the meteorological record of Fort Cascades will present peculiarities in marked contrast with those of the posts to the east or west of it, which would appear anomalous were not due allowance made for its topographical position, this explanatory report has been deemed necessary.

The latitude and longitude given are approximated from a land office survey. The topography of the range and the barometric measurements are taken from the explorations and surveys of Lieutenants Williamson and Abbot, United States Topographical Engineers.

SANITARY REPORT—FORT SIMCOE, WASHINGTON TERRITORY.

Assistant Surgeon A. Heger: December, 1857.

Fort Simcoe is situated in latitude 46° 14′ N. and longitude 120° 40′ W. from Greenwich, about sixty miles north of Fort Dalles, and slightly to the east. These data are from observations made by myself, and the want of proper instruments prevented me from obtaining the longitude more correctly. The post is situated about midway between the Topinish (Tchapinish) and Simcoe, from which it is distant three and a half miles, in an oak grove at the mouth of one of the numerous ravines that open in an eastern direction from the snow-capped mountain range into the valley of the Topinish, near a spring called by the natives "Mul-mul." This valley is bounded to the south by a branch of the above range, running east, which rises abruptly to a height of about 2,200 feet, and forms the first ascent of that high barrier which separates this valley from that of the Kchlicatat's, which is about thirty miles to the south. A similar branch, but less high and steep, forms the northern boundary, distant about twenty miles. The valley to a distance of five miles slopes rapidly, and gives thereby to the post an elevation of about 600 feet above the plain. The plain itself has a slight inclination towards the east, in which direction it extends about seventy-five miles. The plain presents frequent ridges of small elevations, and is intersected by numerous sloughs. The soil consists of a mixture of sand and gravel, with layers of clay; it is loose and spongy, so as to render traveling

difficult in spring, and not suited for agricultural purposes, except in small patches near springs and streams.

The geological formation is eminently volcanic, with the exception of a few granite boulders and small fragments of silica. (Quartz, presenting numerous specimens of the vitreous as well as chalcedonic and jaspery varieties, opal, silicified wood.) Trap-rock, basalt, and broken lava are the only rocks found so far. Specimens of vitreous lava have been found near the post. Springs are abundant during the major part of the year. In the plains they form numerous marshes, which dry up about the middle of summer. The water is generally cold and excellent. A few springs in the plain have a marshy and some a sulphurous taste. The streams have the character of mountain torrents, strong and dangerous in spring, and insignificant in summer; nearly all have more or less subsoil channels, and even the largest often disappear for miles under ground. The Topinish (Tchapinish) which enters from the southwest, and the Simcoe from the northwest, are the principal streams in the vicinity. Both unite about ten miles from the post, forming the Pisco (Pauwikuit) which empties into the Yakama. The post itself is supplied with numerous excellent springs.

The fir and pine are found on the mountains; cottonwood, maple, alder, cherry, and hazel near the streams. The oak occurs in groves, never of large size. Blackberries, raspberries, gooseberries, cranberries, strawberries, and currants, are very abundant. Uva ursi, the substitute for tobacco among the Indians here, is very general. The bear, deer, sheep, wolves, foxes, hares, raccoons, squirrels, moles, and wood rats, may be found. Eagles, hawks, owls, buzzards, ravens, crows, grouse, jays, doves, robins, larks, woodpeckers, blackbirds, bluebirds, night-hawks, gulls, snipe, plovers, curlews, swans, geese, cranes, and several species of ducks have been observed; numerous reptiles and insects, both noxious and harmless. The horned-frog, a small species of scorpion, and a large number of rattle-snakes deserve being mentioned.

An immense number of crickets (? locusts) made their appearance early in spring. About the middle of April they began their attack on vegetation, and destroyed it effectually; they remained until September, when, depositing their eggs into the ground, they perished.

The regular meteorological observations at this post have been made only since April. It will be impossible, therefore, to give a complete description of the climate for this year. The average temperature of the post has been warmer than was to be anticipated from its latitude. The mean temperature for every month is given in the following table:

Month	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Summer.	Autumn.
Mean temperature	55.8	61.8	67.6	70.3	70.7	60.8	51.7	36.3	36.4	69.5	49.6

Sudden changes of temperature were less than are generally observed in mountainous regions. In summer, the days were rather warm, but never oppressive, in consequence of the small quantity of vapor contained in the atmosphere, which favored rapid evaporation. The differences between the temperatures of the days and that of the nights are marked; even after the warmest day the evening will be cool and refreshing. The following table gives the mean temperature of the morning, noon, and evening of each month:

Month	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Summer.	Autumn.
Morning	49.7	56.1	61.2	65.6	64.0	54.1	46.6	33.1	33.6	62.9	44.6
Noon	65.1	72.4	78.3	82.0	83.3	70.7	60.5	40.7	38.9	81.2	57.3
Evening	52.7	56.9	63.2	65.3	64.9	57.8	48.1	35.0	36.5	64.5	47.0

The highest temperature observed was 104° on the 18th of June, and the lowest reported 15° below zero, some time in January, giving an amplitude of 119°. The following table gives the oscillations of temperature for each month:

Month	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Summer.	Autumn.
Highest temperature	74	98	104	102	93	86	69	54	52	104	86
Lowest temperature	34	45	50	52	55	47	35	26	24	50	27
Mean temperature	54.0	71.5	77.0	77.0	74.0	66.5	52.0	38.5	37.5	77.5	56.9
Amplitude	40	53	54	50	38	39	34	28	29	54	69

These figures indicate no violent changes, but a regular progression, which made the climate of this year pleasant.

The currents of air were sometimes violent, as on the 30th of December, on which day they reached a force of nearly eighty miles per hour, but the average force was rather mild. The mean displacement of air during the nine months came from a direction W. 21° S., and was distributed during the different months as follows:

April.	May.	June.	July.	August.	September.	October.	November.	December.
W. 18° S.	N. 22° W.	N. 19° W.	W. 38° S.	S. 6° W.	S. 89° W.	S. 42° W.	W. 25° S.	S. 14° W.

If we take the frequency of winds only in consideration, the following will give the mean frequency for each month; the mean of nine months is west wind:

April.	May.	June.	July.	August.	September.	October.	November.	December.
S. 32° E.	N. 2° W.	N. 18° W.	W. 38° S.	S. 16° E.	S. 33° W.	S. 40° W.	W. 26° S.	S. 16° W.

The strongest winds prevailed in June and December, the mildest in November.

The high mountains in the vicinity form local currents of air. The air of the valley during the day is heated and ascends, producing thereby an east wind; in the evening the reflux takes place, causing the west wind, which prevails soon after sundown. The east wind rises a few hours after sunrise. This local current was well marked from April until September, when it became imperceptible. It could not be determined if general currents interfered, or if the differences in temperature were too small to produce these currents, as the following table shows:

Months	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.
Difference between morning and noon	16.6	16.3	17.1	18.4	19.3	16.6	13.9	7.6	5.3
Difference between noon and evening	12.4	15.5	15.1	16.7	18.4	12.9	12.4	5.7	2.4

A similar local current was observed during the nights in December as long as snow covered the mountains.

With regard to the relation between the different winds and rains nothing definite could be observed.

The precipitation of water was small during the year. This seems to be the result of the

topographical formation; high mountains, especially the Cascade range in the west, causing the precipitation of water before the currents charged with vapor enter this valley. The following gives the quantity of precipitation for each month:

Months	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Summer.	Autumn.
Rains, (inches)	few drops	0.11	0.04	0.11	few drops	0.80	0.32	1.45	0.65	0.15	1.85
Snow, (inches melted)								0.92	3.64		0.92
Total	few drops	0.11	0.04	0.11	few drops	0.80	0.32	2.37	4.29	0.15	2.77

During warm summer days, vapor, carried by the ascending current into colder regions, is condensed, forming heavy clouds, often exhibiting electrical phenomena. The fall of rain-drops may be observed to a certain lower stratum, but no drops fall to the ground. They are expanded again into vapor, on account of the low dew-point of the air. The following table gives the mean dew-point for each month:

Months	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
Morning	38.0	47.9	51.9	48.2	46.5	43.6	34.9	29.6	30.1
Noon	42.9	52.6	57.3	48.2	46.0	48.5	44.2	34.9	34.2
Evening	37.5	46.4	50.4	47.8	46.2	46.1	37.6	31.5	33.0
Mean	39.5	49.0	53.2	48.1	46.2	46.1	38.9	32.0	32.4

The dew point, compared with the temperature, gives the following per cents:

Months	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Summer.	Autumn.
Morning	64.8	74.8	72.5	59.5	54.7	68.5	64.8	87.1	88.2	62.2	73.5
Noon	46.1	51.2	50.0	32.2	28.6	47.0	56.6	80.7	83.9	36.9	61.4
Evening	57.6	69.1	64.8	54.7	52.5	66.6	67.6	87.7	87.8	57.3	74.0
Mean	56.2	65.0	62.4	48.8	45.3	60.7	63.0	85.2	86.6	52.2	69.6

The atmosphere was remarkably dry until November, when the first dew was observed since April. In consequence of the dry state of the atmosphere, dry fogs were frequently observed, caused by fires in the mountains.

The Indians in the vicinity of this post consist of a conglomeration of numerous small tribes who, at the present time, acknowledge the authority of Kamiack-ken as their greatest chief. They are known as the Yakamas, a name they received from the Spokans in consequence of their large abdomen; the word in Spokan meaning "enceinte." Their habits and customs are similar to those of Indians generally inhabiting these Territories. Their food consists chiefly of roots and dried fishes, (salmon,) also of berries and the results of hunting.

Their prominent diseases are phthisis, catarrhal and rheumatic affections, fevers, scrofula, variola, and venereal diseases. Catarrhal affections prevailed in spring and fall, during the wet season. Diarrhœa and dysentery are frequent, but never severe, as far as my observations go; both yielded ready to vegetable tonics; mercurials seemed to delay the cure. Rheumatic affections are very general, especially in advanced age; scrofula is of frequent occurrence; phthisis is very prevalent among them and always fatal; fevers of an intermittent type prevail

during the fishing season; venereal diseases abundant. Their chief remedy consists in a warm vapor bath taken in small round apartments, dug near a stream or spring, about five feet in diameter and four feet high, covered with mud, and a small entrance at the side. The vapor is produced by heated stones placed into these caverns, over which water is poured. This vapor bath is followed immediately by a plunge into the cold stream. They also use some medicinal plants; but their chief reliance is their medicine man, with his supernatural resources.

Wounds are treated with the powder of some plant; it is sprinkled on the wound which is then bandaged. Fractures are treated with splints. These consist of a number of thin sticks, tied with twigs into the form of a mat, surrounding the limb. The only surgical operation performed is bleeding from the occipital vein; it is used against obstinate headache to which they are liable.

Child-bearing presents the same delays and accidents as among the whites. Their obstetrical manipulations consist in pressure on the abdomen; their forceps, in a hoop placed around the waist and forced down. The result of these manipulations is obvious. The violation of hygienic laws shows itself in the large number of cases of prolapsus uteri.

With regard to the sanitary condition of this post, it is to be considered a healthy location so far, notwithstanding the large number of cases treated. If we take the privations into consideration under which this command labored from want of fresh provisions and antiscorbutics, the exposure in tents during the greatest part of the severe winter until they were crowded into unfinished quarters, the peculiar salubrity of this post is to be credited with the less unfavorable results. Scurvy made its appearance towards the end of winter. The actual number of scurvy cases exceeded largely the cases reported, in consequence of some being reported on account of other diseases, and some continued on duty. The approach of the warm season alone, which permitted fresh provisions and antiscorbutics to be procured and issued, prevented a general outbreak of the disease. Iron, and in the severest cases wine, gave the most favorable results. The want of gardens made a continuance of issues of antiscorbutics necessary, and only a liberal supply of these prevented a recurrence of the disease. Proper steps have been taken to obviate similar privations this winter, and favorable results are expected.

No deleterious effects could be perceived in the health of the command, either from the large accumulation of vegetable matter, in consequence of the buildings erected at this post, or from extensive upturning of the soil.

Of fevers, only intermittent were observed. The number of cases in the tables are greatly too large, as they include relapses. Those suffering from this disease had been sick with it the year previous, and no immediate cause could be detected.

The number of diseases of the digestive organs is rather large, admitting even a liberal deduction for feigned sickness. This is due to various causes: First. To the subsistence, which in the early part of the year was rather inferior. Second. Necessary exposure, producing catarrhal affections of the alimentary canal. Third. The change from salt to fresh provisions. Fourth. Intemperance from liquor procured clandestinely, and exposure in procuring it. The number of affections of the respiratory system, with few exceptions, have been catarrh of very mild character. One case of pneumonia occurred, and three of hæmoptysis; all terminated favorably. Neuralgic and rheumatic affections are rather numerous, one case of death only occurred; the cause, phthisis pulmonalis.

ABSTRACT OF DISEASES OCCURRING AT FORT SIMCOE IN 1857.

Quarters	FIRST.	SECOND.	THIRD.	FOURTH	YEAR.	RATIO PER 1,000 OF MEAN STRENGTH.
Strength	218.	247.	253.	253.	243.	
Fevers	4	6	12	1	23	95
Diseases of the organs connected with the digestive system.	61	88	65	71	285	1,173
Diseases of the respiratory system	41	24	14	73	152	625
Diseases of the circulatory system	3	3	0	0	6	25
Diseases of the nervous system	8	27	16	19	70	288
Venereal diseases	0	11	3	9	23	95
Diseases of fibrous and muscular tissue	19	24	15	62	120	494
Abscesses and ulcers	13	23	17	10	63	259
Wounds and injuries	14	48	53	47	162	667
Diseases of the eye	2	3	1	1	7	29
All other diseases	37	38	13	13	101	416
Total	202	295	209	306	1,012	4,168
DISEASES OF THE DIGESTIVE SYSTEM.						
Cholera morbus	0	0	0	1	1	4
Colica	7	14	14	18	53	218
Diarrhœa acuta	5	46	27	44	122	502
Diarrhœa chronica	2	0	0	3	5	20
Dysenteria acuta	14	17	17	1	49	202
Dysenteria chronica	2	1	2	0	5	20
All other diseases of this class	31	10	5	4	50	206
Total	61	88	65	71	285	1,173

SANITARY REPORT—FORT SIMCOE, WASHINGTON TERRITORY.

Assistant Surgeon A. Heger: February, 1859.

This command accomplished its task of building this post this spring. The post forms a square, situated on a somewhat inclined plane, the lower half of which is formed by the company quarters, hospital, and storehouses; the upper half is inclosed by officers' quarters. The arrangement of this post is for four companies. The men's quarters are of squared logs, plain, but not sufficiently inclosed for this high latitude. Their size also is rather small for the full complement of men. The hospital consists of a frame building lined with masonry. It contains only one ward, which accommodates eight beds. The surgery which adjoins the ward on its southern extremity is sufficient in size, but deficient in the distribution of light. The building itself is substantial and comfortable, but its ward is too small for a post of four companies. The troops of this post during winter and part of spring were occupied in completing this post; for the next two months, in making a road to Fort Dalles, wood-chopping, and hay-cutting. This was followed by an expedition under Major R. S. Garnett, United States Army, against the hostile Indians to the north of this post, which occupied nearly two months. The remainder was occupied by several minor expeditions and necessary labor at this post. The different nature of the occupation will be recognized again in the character of casualties, which will be presented below. The casualties of the expedition under Major R. S. Garnett are not included in this report.

The climate this year (1858) differed in several respects from that of last year. The mean temperature of summer was warmer than last year, and that of the winter colder. More rain fell during summer, but less in fall and winter, and the atmosphere in summer contained more moisture than last year; but sudden changes were less frequent, the alternations gradual and uniform.

July and August again proved the warmest months; the greatest heat was observed on the 15th of August; the greatest cold on the 14th of February. The following table exhibits the different features of temperature for this year:

Month	Jan.	Feb.	Mar.	April.	May	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring	Summer.	Autumn.	Winter.	Year.
Mean temperature	31.9	31.6	42.4	52.2	60.0	68.4	73.7	74.7	68.1	48.7	41.7	29.1	51.5	72.3	52.8	30.9	51.9
Maxima	46	51	62	77	81	95	96	103	89	67	56	49	81	103	89	51	103
Minima	16	—1	24	36	45	49	56	57	50	31	25	1	24	49	25	—1	—1
Amplitude	30	52	38	41	36	46	40	46	39	33	31	48	57	54	64	52	104

The daily oscillations of temperature were also less than last year, and insufficient to produce that regular strong local current of air which was so well marked last year. The following table exhibits these oscillations:

Month	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Oscillation of temperature between morning and noon	7.0	8.4	12.5	12.4	10.5	10.5	11.6	11.8	13.8	12.3	10.5	7.5
Oscillation of temperature between noon and evening	3.8	5.8	10.0	10.4	11.7	12.8	15.4	10.8	11.2	9.2	6.4	4.8

The currents of air exhibited a marked prevalence of the general current over local disturbances. They were of less force than the preceding year, but the strongest winds again prevailed in spring, although somewhat earlier than last year, and the mildest in autumn. The most violent gale this year occurred in the night of the 30th to the 31st of December, the same day it occurred last year. Local currents this year were only seldom seen, for reasons above stated. The following table exhibits the results of the observations:

Month	Mean frequency of the wind.	Mean displacement of the air.	Mean force.	Month.	Mean frequency of the wind.	Mean displacement of the air.	Mean force.
January	S. 35° W.	S. 24° W.	1.55	October	W. 43° S.	S. 44° W.	0.51
February	W. 4° S.	W. 3° S.	1.71	November	W. 34° S.	W. 35° S.	0.61
March	W. 10° S.	W. 11° S.	2.24	December	W. 37° S.	W. 36° S.	1.19
April	W. 13° S.	W. 5° S.	2.51	Spring	W. 25° S.	W. 14° S.	1.73
May	S. 37° W.	S. 41° W.	2.29	Summer	S. 27° W.	W. 43° S.	2.35
June	S. 36° W.	W. 36° S.	1.91	Autumn	S. 24° W.	W. 27° S.	1.69
July	S. 12° E.	S. 1° W.	1.76	Winter	W. 22° S.	W. 39° S.	0.89
August	W. 13° S.	W. 5° S.	1.39	Year	W. 29° S.	W. 34° S.	1.66
September	W. 12° S.	W. 23° S.	1.54				

The precipitations of rain and snow, although similar to those of last year, as to the amount, exhibit a different distribution—as more rain fell during the summer but less in autumn. The following table exhibits the precipitation of water and humidity of the air:

Months.....	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn.	Winter.	Year.
Rain.....	0.95	0.70	0.76	0.49	0.55	0.48	0.03	1.04	0.85	0.83	0.41	0.65	1.80	1.55	2.09	2.35	7.74
Snow unmelted.....	11	38	3	(*)	.....	.....	.....	.....	.....	(*)	4	3	3	.....	4	52	59
Total.....	2.05	4.50	1.06	0.49	0.55	0.48	0.03	1.04	0.85	0.83	0.81	0.95	2.10	1.55	2.49	7.50	13.64
Dew point.....	27.9	28.4	32.3	35.9	41.3	46.4	54.9	56.8	52.1	40.0	34.7	22.1	36.5	52.7	42.3	26.1	39.4
Relative humidity.....	87.0	88.9	71.1	58.5	54.4	49.8	53.8	55.6	58.6	73.9	78.2	77.2	61.3	53.1	70.2	84.4	67.2

*A few flakes. One inch of snow equivalent to one tenth of an inch of water.

Electrical phenomena which are rarely seen here, were observed on the 20th and 21st of August, when heavy thunder storms passed over this place.

The number of casualties this year, in comparison with the strength of the command, was 2.25 in 1; this shows a diminution of almost one half, when compared with the number of last year. The causes are obvious. The men were better quartered; the subsistence, which during the previous year gave just cause of complaint, was much improved and the extra-duty men were diminished.

The prominent diseases of this year proved to be rheumatic and neuralgic affections, abscesses and ulcers. It is true that diarrhœa and catarrhal affections presented a larger number, but if we take the relative frequency of these diseases in a large number of men, and compare it with the results at this post, we shall find here a preponderance of rheumatic and neuralgic affections.

Fevers.—An immunity of fevers existed this year at this post. All the cases that occurred were contracted when absent from this post. They generally were intermittent fevers of either quotidian or tertian type, and were either contracted by a detachment engaged in making a road from here to Fort Dalles, and originated in encampments near marshy places, or were brought by a detachment from Fort Jones, California, to this post. The diseases of the digestive system fell below the general average, and consisted chiefly of diarrhœa and colic. The chief cause of both these diseases was a very inferior and adulterated quality of whisky, which, when indulged in to any extent, was invariably followed by disorders of the digestive system. This combined with the exposure necessary to obtain it, and also unconscious exposure after having indulged in it, may be considered as the cause of one half of the above disorders. The remaining cases were nearly all traced, partly to exposure consequent to legitimate pursuits, partly to changes in diet, as free use of vegetables, &c. One case of sporadic cholera occurred; it readily yielded to treatment. Two severe cases of dysentery occurred in the family of an officer, and resulted in the death of the mother and the child. The cause seems to have been effluvia from organic decompositions which permeated those quarters, assisted by meteorological conditions, and a physiological predisposition presented at the time by the sufferer. With regard to the meteorological condition, the attack followed a sudden cooling in the temperature, which for several days previous had been very warm.

The diseases of the respiratory system present only cases of catarrh, except one case of bronchitis. This disease exceeds rather the general percentage of cases; but its larger numbers may easily be accounted for, by the almost excessive humidity of the soil in winter and spring, and the humidity of the atmosphere at the beginning of the winter, after the dry summer and fall.

Influenza was observed in the beginning of January, which attacked all the children at this post; it was rather severe in its character. The meteorological conditions at the time, were a

warm temperature, the air damp and cloudy, soil moist. The disease disappeared as soon as the thermometer fell below freezing; a similar condition of the atmosphere and soil existed in April, when it made its second appearance at this post. It was then very mild, soon disappeared, and only attacked a few adults.

Rheumatic affections prevailed to a large extent, they cannot be accounted for by mere passing events, but seem due to causes inherent to this locality. The investigation of these has led to no satisfactory result. It seems that climatic conditions predispose to this affection; these, with the carelessness of soldiers and the condition of quarters, which are rather lightly constructed, may indicate the proximate cause. Similar to last year, they prevailed more in spring and winter. Abscesses, also prevailed to a larger extent than usual. A few cases of conjunctivitis occurred from mechanical irritation by sand, during high winds.

Wounds and injuries were less than last year, in consequence of the smaller number of extra-duty men. Wounds here heal rapidly, and nothing unfavorable, so far, has been observed, even in very grave injuries, except a slight erysipelatous inflammation, which followed several trifling injuries. This in some of the severer cases, required the tincture of iron and nitrate of silver; but generally it disappeared spontaneously. It never exerted any perceptible influence on the character of the wound. The defeat, by the hostile Indians, of a party of about twenty miners who fell back on this post, presented a number of various gunshot wounds. The progress of these wounds confirmed the above observations, and the result in all cases was favorable. Of scurvy, only two cases occurred. This is the result of liberal issues of anti-scorbutics by the commissary department. The total want of gardens and means of forming them, made these continued issues necessary, until gardens were established. I then only recommended issues of antiscorbutics to the detachment sent to construct the wagon road to the Dalles. The following table exhibits the different classes of the diseases during the year:

Diseases.	First quarter.		Second quarter.		Third quarter.		Fourth quarter.		Year.		Ratio per 1,000 of mean strength.	
	Cases.	Death.	Cases.	Death.	Cases.	Death.	Cases.	Death.	Cases.	Death.	Cases.	Death.
Fevers	0	0	1	0	6	0	2	0	9	0	36.2	.....
Diseases of the digestive system	18	0	23	0	45	0	29	0	115	0	463.9	.....
Diseases of the respiratory system	20	0	3	0	12	0	28	0	63	0	253.6	.....
Diseases of the brain and nervous system	14	0	14	0	6	0	9	0	43	0	173.1	.....
Venereal affections	14	0	8	0	8	0	13	0	43	0	173.1	.....
Diseases of fibrous and muscular structures	29	0	9	0	11	0	16	0	65	0	261.6	.....
Abscesses and ulcers	15	0	14	0	11	0	22	0	62	0	249.6	.....
Wounds and injuries	25	0	27	0	13	0	18	1	83	1	334.1	4.0
Diseases of the eye	1	0	4	0	2	0	0	0	7	0	28.2	.....
All other diseases	9	0	29	0	21	0	10	0	69	0	277.8	.....
Total	145	0	132	0	135	0	147	1	559	1	2,250.4	4.0

SANITARY REPORT—FORT WALLA-WALLA, WASHINGTON TERRITORY.

Assistant Surgeon John F. Randolph: June, 1858.

I have the honor herewith to forward the monthly report of sick and wounded at this post for May, 1858. You will perceive that it includes the casualties of a large portion of this command, which was engaged on the 17th in a battle of near twelve hours' duration with the Spokans and other hostile Indians, beyond Snake river. The expedition started from here on the 6th, under

Brevet Lieutenant Colonel Steptoe, Ninth Infantry, and consisted of portions of three companies First Dragoons, (viz. C, E, and H,) in all 130 men; a detachment of E company Ninth Infantry, twenty-five men, with two mountain howitzers and ten rifles. I accompanied the party with two sets of panniers, containing medicines, instruments, &c.

The health of the command was excellent, and up to the day of the fight but one had reported sick. This soldier injured himself in crossing Snake river.

On the 17th, Indians were encountered in force; a parley was had, and it soon appeared the large majority were hostile and in favor of immediate action, but evidently wished the first fire from us.

The command left the direct trail, and moved to the left in the direction of water. The savages surrounded us, and did every thing to induce a shot, but camp was reached without bloodshed. The troops remained under arms until sundown.

The Indians came among us in large numbers, armed, bows strung, and with threatening looks and actions; a very large guard was posted, and the conclusion arrived at to march the next day. Accordingly, at an early hour the command was in motion, but had proceeded only a few miles when large bodies of Indians were seen in pursuit; a priest and some chiefs joined head quarters and talked for half an hour; when they left, firing commenced on the rear-guard, and in fifteen minutes the fight became general. Elevated ground was attained, and a halt ordered; the dragoons charged, and several shells were fired. Our loss was one man killed and six wounded. We now moved on to another hill about a mile further, near water, where a permanent stand was made, men dismounted, &c. The panniers were unpacked, and the wounded made as comfortable as possible, under the circumstances. While approaching this position, two officers and one soldier were killed, and several wounded. Lieutenant Gaston, shot at the head of his company, body not recovered. Captain Taylor received two wounds, the first in the loins which caused him to fall, and when being put on his horse again, a second through the neck; he lived only a few minutes.

Of the wounded men, three were dangerously so. One, the upper third of the femur much shattered by a large ball; another, gunshot wound through the elbow-joint, with comminuted fracture of the humerus above, occasioned probably by the fall from his horse; the other, gunshot wound through the bone near the axilla, with compound comminuted fracture of the humerus at that point, evidently caused by the fall of the horse, who was shot dead at the same time. During the rest of the day but one soldier was killed and one packer, (half-breed;) several were wounded. When orders were given for a night retreat, and everything abandoned, I lightened the panniers of such articles as were not indispensable, and made arrangements to have the wounded mounted and tied upon horses where necessary; they were placed in charge of their respective companies. It was impossible to arrange litters for packing; no poles were to be had. An attempt was made with some tent poles, but failed. They had been cut in two for packing upon mules.

At 9 o'clock the retreat commenced. Shortly after daylight the command crossed the Palouse river, and halted to await the rear-guard. The wounded were all present except two of company E, First Dragoons, those with the shattered thigh and wounded elbow. Unsatisfactory accounts were given of them. Two hours elapsed, when it was found that all the men were present except the two wounded and Sergeant Ball, the non-commissioned officer detailed to command the rear-guard. The command now pushed on, and reached Snake river after dark.

At an early hour next morning the wounded were put across, a shade was made for them, and their wounds dressed. The troops were all over by 4 o'clock, and the next day we were joined by the wagons from the fort.

Two days before reaching the garrison one of the missing wounded joined. He had succeeded in crossing Snake river notwithstanding his disabled arm. The other man had not been heard of. Sergeant Ball, however, came in three or four days after the arrival of the troops.

The wounded are doing remarkably well, and there is sufficient to ground a hope that no lives or limbs will be lost. This, after the long and rapid march, together with the severity of the injuries, was little to be expected.

I regret to say that the hospital at this post is but little fitted for the requirements of the sick, more especially of the wounded. It is a temporary thatched hovel, twelve by fourteen, with only four bunks, (one above the other,) less than three feet wide. The new building was commenced some months ago, but is little advanced. Now the work seems to be stopped altogether, although the necessity increases, and must continue to do so if more troops arrive, and this point made the basis for future operations.

SANITARY REPORT—FORT TOWNSEND,* WASHINGTON TERRITORY.

Assistant Surgeon John F. Hammond: December, 1858.

Port Townshend was discovered the 7th of May, 1792, by Captain George Vancouver, and surveyed the same day by Captain Vancouver, Mr. Puget, and Mr. Johnstone, and named the next day by Vancouver in honor of the Marquis of Townshend. It is an inlet or bay near the head of Admiralty inlet, on its southwest side. It has an area of about nine square miles; its shores form three sides of a square, and its mouth presents to the northeast. It is an admirable harbor, having a depth of water of ten to twenty fathoms, and good holding ground. Its southeast side is separated from an inlet called Oak Cove by a tongue of land averaging three fourths of a mile in breadth called Craven's Peninsula and Marrow-stone Point, and its northwestern from Port Discovery by a similar peninsula three miles wide called Wilson's Point. Southwest is the continental shore. The whole country surrounding is highland, and is heavily timbered with several species of spruce and pine, poplar, yew, dwarf-oak, ash, hazel, sycamore, maple, alder, willow, and wild cherry, which on the southeast and northwest sides come down to the water's edge, and on the southwest is prevented from doing so by a high bluff. There are a few sand spits in the bay, but they are narrow and are covered by the tides. At two points there are ponds of brackish water, nearly two miles distant on either hand from this military post. The soil is a light, sandy loam, which extends from the summits of the highlands to the level of the sea. Great quantities, and a great variety of berries are produced here in the summer, including wild strawberries, wild raspberries, wild currants, huckleberries, dewberries, thimbleberries, serviceberries, &c. Deer and ducks are abundant; elk and the black bear are found between this and the Olympian mountains, on the west; and there are a few grouse and quails. There is a great variety and abundance of fish. There are no less than eight species of salmon, which, in the Clallam language, are called, severally, klit-shin, kwit-shin, kutsh-kus, suk-kegh, slunnun, met-hlihts, ke-whai, and tah-kwat-lin; salmon trout, cod, mullets, sardines, halibut, and excellent oysters, clams, and cockles, in great abundance.

The military post Fort Townshend is named after this port; it is on the southwest side of the bay. It was established in 1857, and is not yet completed. It is in latitude 48° 5′ 27″ N., and in longitude 122° 46′ 29″ W. from Greenwich. Its altitude above the sea is 135 feet, and it is 100 yards from where a perpendicular line would strike in water. It is on a plain which inclines at an angle of 5°, and presents to the northeast. It is surrounded by spruce and pine trees, and is abundantly supplied with excellent fresh water from a small running stream. The quarters for officers and men are ample, well ventilated, well lighted, and comfortable. The hospital, half of which is occupied at present as quartermaster and commissary's storerooms, is in every way well suited for all the purposes for which it is intended. Everywhere in good police.

The command is employed as follows: Thirteen men are prisoners for desertion, (December 22,) and are kept until trial on daily fatigue duty; nine men are on extra duty; the guard, consisting of six men and a non-commissioned officer, are required to clean their arms, &c., the

[* This post is officially called "*Townsend*," and not "*Townshend*."—R. H. C.]

day they come off; the next day they constitute a police party; the third day, rest; and the fourth day they go on guard again. The balance of the command is drilled twice per diem at Hardee's drill, and the non-commissioned officers once per diem; besides, at Heth's target drill. Their clothing is comfortable, diet good, and habits excellent; and they are cleanly. It is a company of the youngest men I have ever seen in service. They suffer from want of novelty. It is very difficult to get to the town of Port Townshend, three miles distant. The tides are irregular, and flow but once per diem at this season. There are no means of diversion here aside from their duties.

We are bounded on the west by the terminus of the Coast range of mountains, twenty miles distant, the Olympian mountains at this time enveloped in snow, beyond which is the Pacific ocean; north, by Admiralty inlet, Whidby's Island, (fifteen miles distant,) and the terminus of the Sierra Nevada, the Cascade range, sixty miles distant, and the Gulf of Georgia; east, by Admiralty inlet and the Cascade mountains, all buried in snow; and south, by the continent.

There are no endemic diseases here. A little catarrh and rheumatism during the rainy and winter seasons. The constipation, of which there is a large proportion, is due, undoubtedly, to want of exercise. The venereal diseases are taken from the squaws, who are universally prostitutes, and diseased.

SANITARY REPORT—COLVILLE DEPOT, WASHINGTON TERRITORY.

Assistant Surgeon George Hammond: September, 1859.

This command, consisting of companies A and K, Ninth Infantry, Brevet Major P. Lugenbeel commanding, under orders to establish a depot and wintering place for the escort of the "northwest boundary commission," reached this place on the twentieth of June last.

The site fixed upon for the buildings (quarters, storehouse, &c.) is in the northeast corner of a plateau about a mile long, north and south, by half a mile wide. On the north, between it and Morigeaux creek, is a lesser plateau, about twenty feet lower than the first, upon which we are now encamped. Upon the opposite side of the creek, to the north of the encampment and of the site of the depot, is a high range of hills, or rather, mountains, which forms an excellent barrier to the winds from that direction; the plateau is also well sheltered to the east and west by high mountains; whilst to the south it opens, by a gradual descent, upon Colville valley. The only swamp land in the vicinity is in this Colville valley; in fact, upon the breaking up of winter, and the melting of the snows, it becomes one vast lake, nearly twenty miles in length by from one to two in width, and so remains through the greater part of the summer. So soon, though, as the waters recede, a heavy growth of grass and wild clover springs up. There is little or no vegetation left decaying on the surface, and there seems to be, among the settlers, an entire immunity from anything like malarious diseases. This, however, does not seem to have extended to the troops, for two of the cases of fever reported originated among the men employed on extra duty cutting hay in the valley. The other two were returns of old quotidians, induced by exposure on guard during a rainy night.

The wounds reported were caused by the careless or unskillful handling of tools in the hands of extra-duty men. Many cases of poisoning, by contact with a weed resembling somewhat the poison-oak, occurred, but only three cases were sufficiently severe to require medical treatment. Of the other diseases reported no special cause can be assigned.

The employments of the men have been of a character not calculated to injure the health, except, perhaps, of those encamped in Colville valley, engaged in hay-making; and even among them (numbering about twenty-five) disease has not been very prevalent or severe. Many of the troops are employed in the woods, getting out timber for buildings, others in teaming; others, again, in erecting houses, burning lime, making brick, &c.; and the rest in doing soldiers' duty, guard, and police.

They seem well provided with the ordinary regulation clothing, have the usual rations and, in addition, plenty of fresh vegetables, raised from seed planted since our arrival here. Every one has been under canvas during the entire quarter. The hospital has consisted of only one tent, and the sick have been obliged to remain, for the most part, with their companies.

The water is slightly impregnated with limestone, but not sufficiently so to render it either unpalatable or injurious. The habits of the men with regard to cleanliness have been particularly good, and, owing to there being no liquor shops in the country, they have been perforce unusually temperate.

DISEASES.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	8,221	4,276	19	520	2.3
Second quarter	7,962	4,554	17	572	2.1
Third quarter	9,466	5,847	29	618	3.0
Fourth quarter	10,246	5,984	23	574	2.2
Annual ratio	8,974	20,661	88	2,302	9.8

The foregoing data show that the annual proportion of cases of disease to the number of officers and men serving in this region is 2.30 to 1, and that the corresponding ratio of deaths is 1 to 101.98. or 0.98 per cent. The average of deaths to cases treated is 1 to 234.79, or 0.42 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	8,221		7,962		9,466		10,246		8,974				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris congestiva	0	0	0	0	1	0	0	0	1	0	0 in	1	0.1
Febris continua communis	51	0	10	0	42	0	30	0	133	0	0 in	133	14.8
Febris intermittens quotidiana	100	0	178	0	382	1	223	0	883	1	1 in	883	98.4
Febris intermittens tertiana	151	0	219	0	320	0	259	0	949	0	0 in	949	105.7
Febris intermittens quartana	8	0	1	0	9	0	21	0	39	0	0 in	39	4.3
Febris remittens	4	0	27	0	31	0	10	0	72	0	0 in	72	8.
Febris typhus et typhoides	1	0	5	0	12	2	22	1	40	3	1 in	13	4.4
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Total	315	0	440	0	797	3	565	1	2,117	4	1 in	529	236

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength
Strength	8,221		7,962		9,466		10,246		8,974				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in	0	.....
Diarrhœa	275	0	434	0	700	1	542	0	1,951	1	1 in	1,951	217
Dysenteria acuta	81	0	119	0	274	3	140	0	614	3	1 in	205	68.4
Dysenteria chronica	4	1	8	1	17	1	9	1	38	4	1 in	9	4.2
Enteritis	1	0	4	0	5	0	1	1	11	1	1 in	11	1.2
Hepatitis acuta	0	0	2	0	0	0	1	0	3	0	0 in	3	0.3
Hepatitis chronica	0	0	1	0	1	0	0	0	2	0	0 in	2	0.2
Obstipatio	248	0	207	0	258	0	209	0	922	0	0 in	922	102.7
All other diseases of this class	167	0	201	0	258	0	285	1	911	1	1 in	911	101.5
Total	776	1	976	1	1,513	5	1,187	3	4,452	10	1 in	445	496

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	8,221		7,962		9,466		10,246		8,974				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	44	2	40	0	43	0	63	0	190	2	1 in	95	21
Catarrhus	607	0	342	0	380	0	745	0	2,074	0	0 in	2,074	231
Phthisis pulmonalis	5	6	7	1	17	0	16	3	45	10	1 in	4.5	5
Pleuritis	49	1	20	0	22	0	42	0	133	1	1 in	133	14.8
Pneumonia	4	0	7	1	8	4	15	2	34	7	1 in	5	3.7
All other diseases of this class	5	1	15	1	13	0	7	0	40	2	1 in	20	4.4
Total	714	10	431	3	483	4	888	5	2,516	22	1 in	114	280
Rheumatismus	342	1	321	1	305	0	413	0	1,381	2	1 in	690	154

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN

OREGON, AND WASHINGTON TERRITORY.

ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.													
	YEARS	1849 to 1854		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,437.		532.		1,283.		1,111.		1,630.		2,418.		8,221.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	1				23		1		8		18		51	
	Febris intermittens quotidiana	25		9		43		8		4		11		100	
	Febris intermittens tertiana	30		30		56		11		18		6		151	
	Febris intermittens quartana	3						1		2				8	
	Febris remittens	2				1				1				4	
	Febris typhus et typhoides					1								1	
	Febris typhus heterodes														
Eruptive fevers	Erysipelas					1				1		1		3	
	Rubeola									1				1	
	Scarlatina														
	Variola														
	Varioloides														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	55		15		75		15		53		50		270	
	Dysenteria acuta	12				22		18		18		11		81	
	Dysenteria chronica					1		2	1	1				4	1
	Enteritis											1		1	
	Hepatitis acuta														
	Hepatitis chronica														
	Obstipatio	21		3		36		74		32		42		208	
	All other diseases	21		4		36		32		10		34		167	
Diseases of the respiratory system.	Bronchitis acuta et chronica	11	1			5		5		13	1	7		44	2
	Catarrhus	70		10		162		77		136		152		607	
	Phthisis pulmonalis		1		1		1	1	1	3	1	1	1	5	6
	Pleuritis	12		3		10		5		10		11	1	49	1
	Pneumonia					1		1		2				4	
	All other diseases	2				1				2	1			5	1
Diseases of the brain and nervous system.	Cephalalgia	9		1		1		6		15		5		37	
	Delirium tremens	2		1		2		1		4		5		15	
	Epilepsia	1				1		1		10		6		19	
	Neuralgia	3						5		4		5		17	
	All other diseases					2		2	1	3		6	1	13	2
Diseases of the urinary and genital organs.	Gonorrhœa	53		8		2		37		86		50		254	
	Stricture urethræ	2				1		3		2		3		17	
	Syphilis primitiva	15		2		9		11		16		26		109	
	Syphilis consecutiva	6		1		1		6		13		13		40	
	All other diseases	19		3		5		5		33		23		88	
Diseases of the serous and exhalent vessels.	Ascites									1				1	
	All other diseases	2												2	
Diseases of the fibrous and muscular structures.	Pertussis	5				3		5		5		1		19	
	Podagra											1		1	
	Rheumatismus	30		3	1	78		55		95		72		342	1
Abscesses and ulcers	Fistula							3		1				4	
	Phlegmon et abscessus	52		7		47		39		52		40	1	237	1
	Ulcus	16	1	1		48		14		9		14		102	1
Wounds and injuries	Ambustio	4				5		2		6		10		27	
	Amputatio	1				1								2	
	Contusio	30		7		23		29		56	1	79		224	1
	Fractura	1		6		3		4		5		1		20	
	Luxatio									2		8		10	
	Punctio	1												1	
	Sub luxatio	14		3		29		5		27		25		103	
	Vulnus morsum	24		6		19		18		19		38		125	
	Vulnus lacceratum	12		1				5		24		11		53	
	Vulnus punctum	1				2		2		8		5		21	
	Vulnus sclopeticum	1				8				1		3		13	
Miscellaneous	Debilitas	5		1		1				1		3		14	
	Ebrietas	1		8		6		3		10		12	1	40	1
	Hæmorrhois	5		2		2		2		9		9		29	
	Hernia					6		5		3		2		16	
	Morbi cutis					6		2		10		11		29	
	Morbi oculi	13		3		13		11		17		18		75	
	Scorbutus	3				6		21		1				31	
	Suicidium											1			1
	All other diseases	43		9		95		49		66		55		317	
	Total	642	3	147	2	943	1	630	3	1,009	4	905	6	4,276	19

AMONG THE TROOPS AT POSTS IN OREGON, AND WASHINGTON TERRITORY.

CLASSES OF DISEASES.		SECOND QUARTER.													
	YEARS	1849 to 1851.		1855.		1856.		1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,546.		429.		878.		1,304.		1,642.		2,103.		7,962.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	2						3		3		2		10	
	Febris inter. quotidiana	38		26		69		26		6		13		178	
	Febris intermittens tertiana	30		37		87		28		30		7		219	
	Febris intermittens quartana			1										1	
	Febris remittens	11		3				8		3		2		27	
	Febris typhus et typhoides							3				2		5	
	Febris typhus icterodes														
Eruptive fevers	Erysipelas									1				1	
	Rubeola														
	Scarlatina														
	Variola														
	Variolodes														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	69		55		27		97		81		104		434	
	Dysenteria acuta	20		7		18		37		23		14		119	
	Dysenteria chronica		1					8						8	1
	Enteritis									2		2		4	
	Hepatitis acuta	1								1				2	
	Hepatitis chronica					1								1	
	Obstipatio	31		10		13		59		51		43		207	
	All other diseases	33		7		25		37		40		59		201	
Diseases of the respiratory system.	Bronchitis, acuta et chronica	2		2		2		9		11		14		40	
	Catarrhus	73		6		55		41		56		111		342	
	Phthisis pulmonalis		1			2		3				2		7	1
	Pleuritis	1		2		2		1		4		10		20	
	Pneumonia	2				1		1		3	1			7	1
	All other diseases	4				3		3		4	1	1		15	1
Diseases of the brain and nervous system.	Cephalalgia	15		1		1		22		8		8		55	
	Delirium tremens	3				4		3		3	1	7	1	20	2
	Epilepsia	6				1		3		2		2		14	
	Neuralgia			3		6		5		6		4		24	
	All other diseases	2		1						6		3	1	12	1
Diseases of the urinary and genital organs.	Gonorrhœa	77		8		11		33		67		63		252	
	Strictura urethræ	2				1				1		1		5	
	Syphilis primitiva	18		9		11		32		36		39		145	
	Syphilis consecutiva	18		3		4		7		12		18		62	
	All other diseases	27		4		6		7		26		24		94	
Diseases of the serous and exhalent vessels.	Ascites														
	All other diseases	2		1	1									3	1
Diseases of the fibrous and muscular structures.	Permo	1						1						2	
	Podagra														
	Rheumatismus	62		15		59	1	71		52		62		321	1
Abscesses and ulcers	Fistula	1										1		2	
	Phlegmon et abscessus	70		19		28		64		89		59		320	
	Ulcus	16		8		1		9		17		8		59	
Wounds and injuries	Ambustio	7				2		5		4		3		21	
	Amputatio					2								2	
	Contusio	46		13		23		62		62		90		296	
	Fractura	1						4		6		8		19	
	Luxatio	1						1		1		2		5	
	Punctio									5				5	
	Sub luxatio	18		7		13		15		25		24		102	
	Vulnus incisum	23		1		15	1	30		23		25		117	1
	Vulnus lacceratum	13				3		22		12		14		64	
	Vulnus punctum	5		2				2		5		2		16	
	Vulnus sclopeticum					44	5			10		5		59	5
Miscellaneous	Debilitas	3	1	1		2		3		3		6		18	1
	Ebrietas	12		6		7		9		10		7		51	
	Hæmorrhois	4				4		12		4		4		28	
	Hernia	4				2		5				1		13	
	Morbi cutis	4				7		25		14		16		66	
	Morbi oculi	11		4		4		10		18		19		66	
	Scorbutus	6				13		11		5				35	
	Suicidium														
	All other diseases	44		12		47		67		75		78	1	323	1
	Total	839	3	275	1	629	7	905		917	3	989	3	4,554	17

ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

THIRD QUARTER.

CLASSES OF DISEASES.	Years	1854.		1855.		1856.		1857.		1858.		1859.		Total.	
	Mean strength	2,030.		767.		994.		1,355.		1,[illegible]20.		2,454.		9,466.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	Febris continua communis	4	.....	1	.....	1	.....	6	.....	18	.....	12	.....	42	.....
	Febris inter. quotidiana	127	1	171	.....	23	.....	7	.....	19	.....	32	.....	382	1
	Febris intermittens tertiana	122	.....	92	.....	32	.....	26	.....	31	.....	17	.....	320	.....
	Febris intermittens quartana	5	.....	.....	.....	2	.....	.....	.....	1	.....	1	.....	9	.....
	Febris remittens	7	.....	11	.....	1	.....	2	.....	3	.....	7	.....	31	.....
	Febris typhus et typhoides	6	2	.....	.....	1	.....	2	.....	1	.....	2	.....	12	2
	Erysipelas	.....	.....	.....	.....	.....	.....	2	.....	3	.....	.....	.....	5	.....
Eruptive fevers	Rubeola	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2	.....
	Scarlatina	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Variola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Varicella	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Cholera Asiatica	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diseases of the organs connected with the digestive system.	Diarrhœa	197	1	90	.....	78	.....	77	.....	134	.....	115	.....	700	1
	Dysenteria acuta	73	1	31	1	63	.....	45	.....	29	1	37	.....	274	3
	Dysenteria chronica	.....	1	5	.....	.....	.....	11	.....	.....	.....	1	.....	17	1
	Enteritis	.....	.....	.....	.....	.....	.....	1	.....	1	.....	3	.....	5	.....
	Hepatitis acuta	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Hepatitis chronica	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....
	Obstipatio	80	.....	13	.....	28	.....	45	.....	52	.....	40	.....	258	.....
	All other diseases	29	.....	17	.....	35	.....	45	.....	74	.....	62	.....	258	.....
Diseases of the respiratory system.	Bronchitis, acute et chronica	9	.....	6	.....	4	.....	9	.....	14	.....	5	.....	44	.....
	Catarrhus	84	.....	8	.....	17	.....	141	.....	6	.....	59	.....	380	.....
	Phthisis pulmonalis	4	.....	3	.....	1	.....	3	.....	2	.....	4	.....	17	.....
	Pleuritis	5	.....	1	.....	3	.....	3	.....	3	.....	7	.....	22	.....
	Pneumonia	4	2	.....	.....	.....	1	2	.....	1	.....	1	1	8	4
	All other diseases	.....	.....	2	.....	2	.....	3	.....	2	.....	4	.....	13	.....
Diseases of the brain and nervous system.	Cephalalgia	22	.....	2	.....	.....	.....	9	.....	9	.....	9	.....	51	.....
	Delirium tremens	3	.....	2	.....	1	.....	11	3	2	.....	3	.....	22	3
	Epilepsia	8	.....	1	.....	.....	.....	8	.....	4	1	3	.....	21	1
	Neuralgia	3	.....	1	.....	1	.....	6	.....	4	.....	4	.....	19	.....
	All other diseases	2	1	3	.....	5	.....	.....	.....	9	1	7	.....	26	2
Diseases of the urinary and genital organs.	Gonorrhœa	65	.....	10	.....	20	.....	53	.....	68	.....	68	.....	284	.....
	Stricura urethræ	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	.....
	Syphilis primitiva	31	.....	8	.....	19	.....	30	.....	42	.....	38	.....	171	.....
	Syphilis consecutiva	7	.....	5	.....	3	.....	6	.....	25	.....	23	.....	69	.....
	All other diseases	22	.....	2	.....	4	.....	17	.....	27	.....	28	.....	100	.....
Diseases of the serous and exhalent vessels.	Ascites	.....	.....	.....	.....	1	.....	.....	.....	2	.....	1	.....	4	.....
	All other diseases	.....	.....	1	.....	4	.....	.....	.....	1	.....	.....	.....	6	.....
Diseases of the fibrous and muscular structures.	Perno	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Podagra	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rheumatismus	52	.....	21	.....	37	.....	64	.....	74	.....	54	.....	305	.....
Abscesses and ulcers	Fistula	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	4	.....
	Phlegmon et abscessus	81	.....	43	.....	65	.....	61	.....	48	.....	49	.....	341	.....
	Ulcus	27	.....	2	.....	19	.....	12	.....	32	.....	8	.....	100	.....
Wounds and injuries	Ambustio	4	.....	3	.....	3	.....	5	.....	4	.....	2	.....	21	.....
	Amputatio	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....
	Contusio	76	.....	38	.....	40	.....	54	.....	88	.....	51	.....	346	.....
	Fractura	7	.....	1	.....	.....	.....	6	.....	6	.....	2	.....	22	.....
	Luxatio	1	.....	2	.....	1	.....	.....	.....	8	.....	5	.....	17	.....
	Punctio	.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
	Sub luxatio	20	.....	35	.....	4	.....	17	.....	11	.....	14	.....	101	.....
	Vulnus incisum	48	.....	8	.....	21	1	39	.....	24	.....	24	.....	164	1
	Vulnus laceratum	12	.....	6	.....	1	.....	30	.....	6	.....	6	.....	61	.....
	Vulnus punctum	11	.....	4	.....	3	.....	3	1	9	.....	3	.....	33	1
	Vulnus sclopeticum	4	1	1	.....	12	.....	2	.....	3	2	1	.....	23	3
Miscellaneous	Debilitas	12	.....	1	.....	4	.....	7	.....	11	.....	4	.....	39	.....
	Ebrietas	18	.....	2	.....	3	.....	15	.....	17	.....	23	.....	78	.....
	Hæmorrhois	6	.....	10	.....	5	.....	6	.....	23	.....	10	.....	60	.....
	Hernia	2	.....	2	.....	6	.....	2	.....	4	.....	1	.....	17	.....
	Morbi cutis	8	.....	4	.....	13	.....	10	.....	12	.....	10	.....	57	.....
	Morbi oculi	20	.....	9	.....	9	.....	17	.....	10	.....	15	.....	80	.....
	Scorbutus	9	.....	1	.....	5	.....	5	.....	3	.....	4	.....	27	.....
	Suicidium	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	All other diseases	61	4	74	.....	41	1	50	.....	77	.....	66	1	369	6
	Total	1,404	14	771	1	641	3	957	4	1,115	5	939	2	5,847	29

AMONG THE TROOPS AT POSTS IN OREGON, AND WASHINGTON TERRITORY.

CLASSES OF DISEASES.		FOURTH QUARTER.												TOTAL.	
	YEARS	1848 to 1854.		1855.		1856.		1857.		1858.		1859.			
	MEAN STRENGTH	2,271.		886.		929.		1,566.		2,393.		2,201.		10,246.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis	4				2		7		10		7		30	
	Febris inter. quotidiana	120		57		7		5		19		15		223	
	Febris intermittens tertiana	91		86		20		26		29		16		270	
	Febris intermittens quartana	12				2		6				1		21	
	Febris remittens	7		2								1		10	
	Febris typhus et typhoides							4		11	1	7		22	1
	Febris typhus icteroides														
Eruptive fevers	Erysipelas	5						1				1		7	
	Rubeola											1		1	
	Scarlatina														
	Variola														
	Variolodes														
Diseases of the organs connected with the digestive system.	Cholera Asiatica														
	Diarrhœa	156		49		65		112		98		62		542	
	Dysenteria acuta	41		23		23		20		19		11		140	
	Dysenteria chronica	5			1			2		2				9	1
	Enteritis							1	1					1	1
	Hepatitis acuta	1												1	
	Hepatitis chronica														
	Obstipatio	45		1		14		54		61		31		209	
	All other diseases	55		28		16		59		81		16	1	255	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	10		10		10		11		14		8		63	
	Catarrhus	101		33		52		229		183		147		745	
	Phthisis pulmonalis	2		1		1	1	3		3		6	2	16	3
	Pleuritis	5		2		2		10		12		11		42	
	Pneumonia	2	1	1	1	2		2		7		1		15	2
	All other diseases	2				1		1		2		1		7	
Diseases of the brain and nervous system.	Cephalalgia	20						12		6		4		42	
	Delirium tremens	5	1	1				1		5		7		19	1
	Epilepsia	6				3		3		5		4		21	
	Neuralgia	1		1		2		12		10		5		31	
	All other diseases	4		1				2		3		2		12	
Diseases of the urinary and genital organs.	Gonorrhœa	63		5		41		52		60		76		297	
	Strictura urethræ	2		1		2		3		2		3		13	
	Syphilis primitiva	51		19		12		32		33		62		209	
	Syphilis consecutiva	6	2	6		2		19		28		34		95	2
	All other diseases	22		5		11		32		24		12		136	
Diseases of the serous and exhalent vessels.	Ascites														
Diseases of the fibrous and muscular structures.	All other diseases			3									1	3	1
	Perinæ	2				2				2		1		7	
	Podagra														
	Rheumatismus	69		25		42		109		100		68		413	
Abscesses and ulcers	Fistula	2								2		1		5	
	Phlegmon et abscessus	98		19		42		70		43		51		323	
	Ulcus	23		22		15		14		23		7		107	
Wounds and injuries	Ambustio	15		4		2		3		9		8		41	
	Amputatio		1	3										3	1
	Contusio	79		25		19		89		125		74		411	
	Fractura	1	1			1		5		8		5		20	1
	Luxatio	3						1		6		1		11	
	Punctio							1						1	
	Sub luxatio	15		11		6		28		7		13		80	
	Vulnus incisum	35		7		25		37		37	1	31		172	1
	Vulnus lacceratum	16		3		5		7		15		42		88	
	Vulnus punctum	5		1				3		13		4		26	
	Vulnus sclopeticum	3		35	1	4	1	1		9		2	1	54	3
Miscellaneous	Debilitas	14		2		2		4		1				23	
	Ebrietas	19	1	11		9		25		29		38		126	1
	Hæmorrhois	10		5		6		9		17		6		53	
	Hernia	3		1		1		3		1		1		11	
	Morbi cutis	9		2		10		11		9		8		49	
	Morbi oculi	12		6		3		12		10		20		63	
	Scorbutus	6		6		3		5						20	
	Suicidium														
	All other diseases	80	2	35		33	1	54		63		60		325	3
	Total	1,368	9	561	3	515	3	1,022	1	1,259	2	1,059	5	5,784	23

UTAH.

In the summer of 1857, a portion of the army that had been previously concentrated at Fort Leavenworth, Kansas, commenced its long march of over twelve hundred miles across the prairies for Salt Lake City, Utah Territory. This army corps passed the winter of 1857 and 1858 at Camp Scott and at Fort Bridger, in Utah, and in the spring moved on to Salt Lake City, beyond which it finally encamped at a point now known as Camp Floyd.

In the summer of 1858, the troops in Utah were largely reinforced by commands moving from Fort Leavenworth across the plains.

The sanitary condition of these troops while on the march to Utah, the topography of and diseases incident to the positions they occupied in that Territory, will be found described in the following sanitary reports:

SANITARY REPORT—TENTH INFANTRY *EN ROUTE* FOR UTAH.

Assistant Surgeon Roberts Bartholow: September, 1857.

On the 8th of July, by order of the general commanding, I reported for duty with the Tenth Infantry. Eight companies of this regiment were then lying at Camp Walbach, near Fort Leavenworth, Kansas Territory, being destined to form a part of the "army for Utah." One of the regiments, recently created, has since its formation occupied the different military posts in the Territory of Minnesota, and a portion of it has been engaged in some arduous frontier service—in the Pembina expedition, in an expedition to the Wattonwan river, and one company in the Sioux expedition.

The regiment arrived at Fort Leavenworth on the 26th of June, and pitched their camp northwest of the fort, on an alluvial bottom, amid a grove of cottonwood trees, and in the immediate vicinage of the Missouri river. This camp was styled "Camp Walbach."

The total strength of the eight companies upon their arrival was three hundred and forty, less than half their full strength, desertions being the principal cause of this reduction. During the stay at Camp Walbach, three hundred and fifty-seven recruits joined, a majority of whom were enlisted in the Northern States, the remaining in various towns of the West. In subsequent parts of this report, I shall have occasion to remark upon the sanitary condition of many of these recruits, in order to explain the occurrence and results of diseases affecting the command. Here, however, it is necessary to premise that many labored under various forms of chronic disease; many were broken down by habits of dissipation—by intemperance, by syphilis, by the practice of masturbation, &c.; some were too young to endure the fatigues and privations incident to a military life; others too old. Two classes, therefore, the result has shown, are to be considered as a cause of disease constantly operating; young men unaccustomed to new and strange modes of living, and old men worn out by the practice of various vices.

The diseases prevalent at Camp Walbach were such as might be expected from its situation and from the hygienic circumstances to which the men were subjected. The camp-ground was low, damp, and thickly overgrown with underwood; the soil evidently of very recent formation, and elevated but a few feet above the water-level. Nearly opposite the encampment—the stage

of water being low—an extensive deposit of alluvial mud lay exposed to the July sun. From the time the regiment arrived, and before joining, I was informed intermittents had been frequent. The three cases of periodical fever recorded in the first month of my quarterly report occurred at Camp Walbach; other cases not admitted upon sick report were treated. Had the season been later, *cæteris paribus*, I imagine malaria would have proved a more fruitful source of disease. At Fort Leavenworth and surrounding country, the periodical fevers constitute a large proportion of the cases treated. Judging from the situation of the fort, this fact would not be anticipated. It stands upon a bold bluff about one hundred and fifty feet above the river. The bed of the levee is formed by magnesian limestone, (dolomite,) and has required but little aid from art to make it one of the best landings upon the river. After a pretty gradual ascent, the bluff breaks away into the undulating prairie, and upon its side a belt of oak and cottonwood trees stretches along. It cannot be supposed that the poison producing the malarial diseases of Fort Leavenworth has its origin in the low grounds skirting the river, for experience has amply demonstrated that a belt of woodland offers an effectual barrier to its passage. The cause should be sought rather in the soil itself, a silicious alluvium; which, in all regions where it occurs, has been abundantly fertile in the production of miasm. At Camp Walbach, in much greater exuberance than at the fort, existed all the conditions necessary to the elaboration of malaria; and hence, I opine, had the season been later, the command would have suffered from periodical fevers in probably virulent forms.

Diarrhœa largely preponderated over all other forms of disease. Several causes conspired to produce this result:

I. Dietetic.—Recruits, unaccustomed to the care and preparation of food, were principally affected. This cause acted more effectually upon those addicted to the excessive use of alcoholic stimulants, which, by depressing nervous energy and by stimulating the mucous coat of the alimentary canal to increased secretion, rendered them more susceptible to its influence. To those unused to it, the water of the Missouri river, constantly employed for drinking and culinary purposes, proved laxative. Besides, early vegetables, exposed to sale in the camp, unripe and badly cooked, were eagerly devoured. A dietetic cause more potent than all these constantly obtruded itself upon my notice. I refer to that ancient military institution, bean soup. A vile concoction, prepared under this name, being regularly issued, and as regularly followed by an increase of diarrhœa, especially amongst those recruits predisposed to its occurrence by other causes.

II. Climatic.—These were predisposing causes. The nights were cool, rendering blankets necessary to comfort, whilst the days were oppressively warm; consequently the thermometric range was considerable, as the following observations exhibit: Lowest range, 45°; highest, 94°; mean, 69° Fahrenheit.

Changes of temperature, however, had but little influence upon the prudent and temperate men of the command, and especially those old soldiers who had learned in the school of experience the art of taking care of themselves.

A disease, which in this latter class would have been of small importance, rendered many recruits unable to bear the fatigues of drill, and other military duty. In consequence of the general prevalence of diarrhœa, its therapeutic management was my principal employment. After a careful trial of various plans of treatment, I found a mixed cathartic and astringent medication most successful. At the outset it was my custom to prescribe the ol. ricini, or, if any evidences of biliary derangement were present, the pil. hydrarg. After sufficient time had elapsed, fifteen drops of the aromatic sulphuric acid and ten of tincture of opium were ordered every fourth hour. This prescription was so constantly and promptly successful, that the *post hoc* could not be mistaken for the *propter hoc*. To the alterative and astringent influence of the elixir vitrioli upon the relaxed mucous membrane, I am disposed to attribute the efficacy of the prescription.

Under the head of toxicum are recorded two cases of poisoning, which, lest they may be mistaken for suicidal attempts, must needs be explained. The poisoning consisted in an inflammation of an erysipelatous character, induced by contact with the poison-oak, (*Rhus toxicodendron,*) a plant which flourished in great luxuriance at Camp Walbach. The local pain, heat, redness, and swelling were often considerable, accompanied by some constitutional disturbance, especially when the scrotum was involved.

On the 18th July, by order of the general commanding, the Tenth Infantry took up the line of march for Salt Lake City. The day was pretty far advanced when, the tents being struck and the wagons loaded, the column moved out from Fort Leavenworth on the western road.

The termination of this long march, seemed as remote as the *ultima thule* to the ancient world. By way of preparation for the labors and exposure of such a journey, an immense amount of drunkenness was indulged in; and at the outset we had ample demonstration of the fact, that a drunken recruit makes but an indifferent soldier. The afternoon of the 18th July, was excessively warm; the thermometer at Fort Leavenworth hospital indicating 95°. The march was quite short—five miles—and the men carried nothing beside their arms; but quite a number fell from the ranks exhausted, and these were without exception the two classes already mentioned—boys unaccustomed to fatigue, and dissipated men of middle life and more advanced age. To enure the men gradually to the labor of marching, it was found expedient to make short distances at the outset; accordingly for the first three days the regiment traveled but sixteen miles.

The duration of the march was usually indicated by the necessity of finding wood, water, and grass, which in this region, is not unfrequently attended with difficulty. The great roadway from Fort Leavenworth to the Territory of Utah, passes in the early part of its course over a beautiful prairie country, undulating, and covered with the most luxurious vegetation. The same character of scenery, however, constantly spread out, renders the march very laborious, tedious, and common-place. Wood is confined to the narrow belts of timber along the principal water-courses, and its scarcity is well illustrated by this circumstance: a single cottonwood tree, which alone of all its companions has resisted the storms of many years, standing out upon the prairie, constitutes a land-mark for many weary miles, from and to which distances are constantly calculated. To bodies of troops passing over this region, scarcity of water is one of the greatest privations, and frequently, very long marches are absolutely necessary to obtain it. And this is a circumstance necessary to be mentioned, as influencing the health of the command. Urgent thirst followed as a necessary result from the immense amount of cutaneous transpiration. When canteens were emptied, the men drank eagerly from little pools of water collected in the ravines—water exceedingly filthy and nauseous from animal and vegetable decomposition. Very perceptibly laxative, it was particularly injurious in all cases of diarrhœa. Upon some persons it acted like an instant poison, producing violent vomiting and purging, with abdominal cramps, and accompanied by considerable prostration of the vital powers.

The meteorological conditions of the month were not peculiar. In the temperature at noon, not much variation was observed; the thermometer being very uniform at the same hour. Usually at reveille, thick garments were indispensable to comfort, but as the sun rose into the zenith, the heat became oppressive. Rains were unfrequent and inconsiderable. Thunder storms, accompanied with severe wind, passed over us on two nights, but the days were cloudless. No dews were observed. On 31st July, the regiment arrived upon the Little Blue. Distance made, 210 miles; average daily march, including one day's rest, fifteen miles.

The total strength of the eight companies upon arriving at the Little Blue, was 547; having lost by desertion from the time of their departure eighty-two men. No deaths; number treated, 242; ratio of cases per 1,000 mean strength, 442.

As medical officer to the regiment, it became my duty to examine into the condition of those

professing themselves unable to walk, and of such as fell ill upon the march. The former class consisted principally of those soldiers who were prostrated by the effects of long-continued inebriation, combined with high temperature; but when whisky and civilization were left behind, the inability to march became the exception, as it had previously been the rule. This class also included those recruits who labored under some physical debility from chronic disease. I was much gratified by witnessing during the march their progressive improvement, especially those in whom a phthisical tendency was marked and imminent. The latter class consisted of such as were overcome by heat, dust, and fatigue. In these cases the symptoms observed were sudden blindness, extreme muscular feebleness, sobbing respiration, a quick small pulse, &c. This state differs in many important particulars from the "coup de soleil," (*ictus solis*,) especially in its results, for it never was fatal. The treatment required, consisted mainly in rest, brandy, sulphuric ether, and laudanum. Treated upon the march, and having a speedy recovery, they rarely came upon "sick report."

The ambulances provided for the transportation of the sick, were ill suited to such a purpose; so lofty that it was a difficult matter to get a sick man inside, and so rough and jolting that sick men were not improved by the riding. Transportation being limited, I was much embarrassed, during the early part of the march, for the means of carrying those upon sick report excused from marching, and such as were taken sick upon the way.

However, as the causes of disease previously enumerated were removed, the health of the command continued to improve, and my professional labor, happily, became somewhat lightened.

August.—The month of August was occupied in the march from the camp upon the Little Blue, to the vicinity of Fort Laramie, including a detention of three days at Fort Kearny for rest and preparation. For six days the road continues in the vicinity of the Little Blue, for convenience of access to wood, water, and grass, the three great essentials in a journey over this region. After leaving this stream we have a march of two days across to the Platte valley, over a prairie utterly destitute of interest, arid, and dusty. The scarcity of water is rendered the more tantalizing by the frequent phenomenon of mirage. As we near the Platte river, a range of sand hills gives some character to the scenery. It was with a feeling of great relief, if not of positive joy that the column marched through these barren hills into the green valley below. As we were destined to encamp in the valley of the Platte for many days, a description of its chief topographical features is rendered necessary. The valley is a broad alluvial bottom, covered with a dense herbage, and separated from the prairie on either side by a range of sand hills. The river side in some places is shaded by a thick growth of several species of the salix, but in many more unshaded, except by the tall grass which leans over the tame and characterless banks.

The river in many respects is most remarkable. Traversing an immense extent of country from west to east, and having a fall averaging eight feet to the mile, its current is exceedingly rapid and impetuous. Filled with sand-bars and islands, its channel is winding and irregular. The water of the river, I am told, is held in little estimation by emigrants. They attribute much of the disease by which parties have occasionally been decimated to the use of the river water, and therefore collect surface water in superficial wells dug for that purpose. This well water is clear, cool, and palatable; but from my own observation, I am inclined to think the river water is less liable to produce disease.

Our first camp in the valley was in the vicinity of a large Pawnee encampment. Having received timely information from the commanding officer at Fort Kearny that small-pox was prevailing among these Indians, a rigid non-intercourse policy was at once ordered. Several teamsters in the quartermaster's department, not submitting to strict military rule, were prevailed upon by the charms of filthy squaws, and, as a consequence, suffered from syphilitic inoculation. No soldier, however, was infected.

The march along the Platte valley may be summed up in a few words—marched and

encamped. The dull routine of marching and encamping was occasionally interrupted by a buffalo chase, and our meagre diet enlarged by the addition of buffalo steaks. Beyond this but little variety was afforded during the month of August. Those memorable features of the scenery, over which various travelers have gone into ecstacies, would, in more characteristic regions, excite but little attention; but, in accordance with custom, I made a pilgrimage to Courthouse Rock, to Chimney Rock, and Capitol Rock, and found (as, no doubt, other enthusiastic people have) piles of sandstone, bearing no strong resemblance to the objects named after, disintegrating slowly, but, from greater hardness of the rock, less rapidly than the surrounding sand hills. I am gratified, however, to be able to report a diminution in the number of sick.

Diarrhœa, as during the previous month, was the principal disease, but in less proportion and readily amenable to the treatment already indicated.

Diseases of a character somewhat graver began to prevail—intermittents and remittents.

During the three days of rest at Fort Kearny the periodical fevers first manifested themselves. This result was to be anticipated. The Platte valley, from the nature of its geological constitution, must be eminently productive of malaria. Beside, the thermometric range for the month was extraordinary, as the following observations exhibit: Highest range, 96°; lowest, 32°; mean, 64°.

Dews were frequent and very abundant. Two of the cases of remittent fever were very intractable, and early manifested a tendency to the typhoid type, notwithstanding the free administration of sulphate of quinine. This nomadic life is surely not well adapted to the treatment of an active febrile affection, more particularly the transportation in those high, balloon-like, and vibratory ambulances; hence, when we arrived at Fort Laramie these cases were sent to the hospital of that post.

The first case of scorbutus occurred in this month. The symptoms were not urgent, and yielded readily under the administration of the iodide of potassium, a diet of "desiccated vegetables," and the use of an alcoholic stimulant. This man is a recruit, an inveterate drunkard, and abstains from the use of whisky only when unable to procure it; and hence, in this man's case, as in many others, a march over the Great Plains is a better temperance sermonizer than Maine law enactments. Regarding this case of scorbutus as an indication of future trouble, I recommended, in a communication to the colonel commanding, the immediate issue of the desiccated vegetables, and a weekly issue thereafter. This preparation is admirably adapted to the purpose for which it was designed, being palatable, easily digested, and, a considerable amount being forced by powerful compression into a small compass, is readily transported without undergoing change. Its use is invaluable upon an expedition like the present one.

The professional monotony of the march was varied by two cases of labor, both in primipara. Both these cases were delivered in a wagon, *en route*—a novelty in obstetric practice not to be recommended to professors of the art.

The first labor presented no distinctive features, if I may except a rapid recovery under such unwonted conditions. The other labor was remarkable for its duration, a period of sixty hours. The delay I attribute to several circumstances: a somewhat narrowed pelvis, rigidity of the soft parts in consequence of age, and an excessive nervous mobility quite unusual in a camp woman. Distance marched, including six days of rest, 419 miles; average daily march, 13.22 miles; number of cases treated, 158; ratio per 1,000 mean strength, 294.

September.—Beyond Fort Laramie our march lay over a country very different in character from the preceding. Continually ascending along the North fork of the Platte, we finally reach a point at which it is but a small mountain stream, and not far from its sources. The scenery grows wilder as we advance, but desolate and barren. Some evidences of mineral wealth present themselves along this branch of the Platte; deposits of coal and iron underlying the new red sandstone. We also enter the "alkaline country," ill-famed among the emigrants for impreg-

nating water and grass with a subtile poison. The ground in many places is covered with an alkaline efflorescence of the potash, soda, and magnesian salts, whitening the surface like new-fallen snow. Like many other things celebrated in song and story, to have no faith in which is a heresy, the tales about alkaline poisoning proved to be grossly hyperbolical. For the last time upon the Platte, we encamped upon one of those alkaline bottoms, and the animals ate greedily of the saline-covered grass without any ill effect, and certainly no diseases were produced among the men. The alkaline lakes in these mountains have many notable features. Having no communication with any flowing water, they lay dark, stagnant, and repulsive, in a basin between the hills, apparently upheaved in the same convulsion of nature, which forced up the mountains. Large masses of carbonate of potassa, nearly pure, lie along the banks of these lakes during the dry season.

On the 18th of September we leave the Platte river, companion of many miles, and in the space of two days arrive at the Sweet Water, passing over a road continually ascending. The green valley of the Sweet Water, and the clear stream winding through the Rocky Mountains, greatly relieve the barren and desolate scenery. One of the grandest objects upon the road thus far passed over is the Devil's Gate, where the river bursts through the chain of hills. Bare rocks of granite rise up vertically to an immense height. Great boulders of gneiss having fallen into the bed of the stream, the water boils through with a solemn roar, like the beating of the ocean on a rock-bound shore. For six days we encamped along the Sweet Water, leaving it in the vicinity of the South Pass. On the 24th of September we reached the summit of the Rocky Mountains and marched through the South Pass, attaining the greatest altitude—7,230 feet.

The Pass differs very materially in appearance from what preconceived ideas led us to expect. The ascent is so gradual and extending over so long a distance that it is imperceptible to ordinary observation. Instead of a narrow gorge opening between immense mountains, we find broad table-land insinuating itself among the ranges.

This considerable altitude had a very perceptible effect in increasing the labor of marching. The respiratory acts were rendered more frequent and laborious; fatigue was easily excited, and expistaxis became quite common. A high wind also prevailed, raising clouds of dust and sand. Notwithstanding these adverse circumstances, the necessity of finding a camp compelled a march of twenty-six miles, the longest march in the whole journey. The regiment encamped at the Pacific spring, the head waters of several streams flowing west; a place memorable from an attempt of the Mormons, in the night, to alarm and stampede the animals. I have to record the death of one of our hopeful recruits on this occasion. The excitement, caused by an alarm at midnight, proved too much for this man's equanimity, and he fell down dead upon the spot, the first victim of the war. Cause, organic disease of the heart.

On the 27th we arrived upon Green river, Utah Territory. Having learned that the Mormons meditated an attack upon government trains lying upon Ham's fork, a night movement was directed, and the regiment marched at 1 o'clock on the morning of the 28th, arriving upon Ham's fork at 9 o'clock, A. M., a distance of twenty-two miles. Upon Ham's fork our march for the month terminated, and my record of it for the quarter closes. Distance marched, 390 miles; average daily march, including eight days of rest, 13 miles; average daily march, excluding eight days of rest, 17.45 miles.

The number of sick continued to decrease until the latter third of the month, when a predisposition to disease was evidently created by several causes.

During the march from the Sweet Water through the South Pass to Ham's fork, very great vicissitudes of temperature were observed. At night, ice formed in my tent, and during the day the thermometer frequently rose to 85°. The atmosphere too was highly rarified, laden with fine particles of sand, and difficult to respire. The unusually lengthy marches, under the operation of these causes, produced a degree of languor and exhaustion highly favorable to the

reception of morbific agents. Activity was followed by inaction, except the performance of the ordinary routine duties of camp life.

With the cases left at Fort Laramie, periodical fevers seemed to have relinquished the command; but upon Ham's fork, a new manifestation took place. The valley of this stream has an elevation of 6,640 feet. An interesting question here arises, whether malaria is a product of this region. The generally received opinion that a low, marshy country, and a certain temperature, are essential to its production, has not in all cases been borne out by carefully recorded facts. An element of production exists here, however, which in all countries has been abundantly fertile in the elaboration of the poison; I allude to the soil, formed by the disintegration of the sandstone rocks, and in the valleys or river bottoms, by an alluvial deposit intermingled with the sand. I am informed that these diseases are not unknown to the hunters and trappers, who spend their lives in these regions. It might, at first view, seem improbable that the periodical fevers would prevail at so great an altitude as this, more particularly when the specific gravity of the poison is considered; but the results of observation should not be superseded by vague and uncertain theories. The intermittents differed in no respect from ordinary cases. The remittents were severe, not easily controlled, and manifested a tendency to the typhoid state. My practice has usually consisted in the administration of a large dose of quinine during the remission, and the neutral mixture during the febrile exacerbation.

The cases of diarrhœa have been in some instances modified by what Dr. Sydenham styled the *constitutio aëris epidemica,* as has been frequently observed in malarial regions. These cases failed to be relieved without the occasional administration of sulphate of quinine; and this peculiarity was more particularly observed amongst the men in the quartermaster's department, many of whom were treated ineffectually by the ordinary methods.

My report for the month of September, exhibits four cases of scorbutus; these, with the one in August, make five cases during the quarter. These five cases though insufficient to establish a general principle, show clearly that abstinence from vegetable food is not, as some suppose the sole cause of scurvy; nor can its occurrence be ascribed to the use of salted food. These men, in common with the whole command, have eaten per week a certain amount of the "desiccated vegetables," besides apples, peaches, rice, and molasses, and, moreover, the amount of fresh meat consumed greatly preponderated over the salted meat. In my opinion, the previous habits and physical condition act an important part.

A great variety of causes, apparently opposite in character, are, *cæteris paribus*, capable of producing scorbutus. The abuse of alcoholic stimulants, and that filthy narcotic, tobacco, a want of cleanliness, indolence, and exhaustion from hard labor, mental despondency, and irregular, ill-prepared food, combine in most cases in the production of the scorbutic cachexy. Upon referring to the previous history of these scorbutic men, a sad catalogue of evil habits is presented—most prominent of all, the long continued and excessive use of strong drink; ceaseless tobacco chewing. These men belong to that interesting class, heretofore not unfrequently mentioned, old, broken-down, and inherently worthless recruits.

No more discouraging business can be conducted than the treatment, under present circumstances, of such miserable, forlorn men.

That reputed specific the *Agave americana* not being available, I have rung the changes upon every imaginable remedy. One case yielded readily to the administration of the iodide of potassium; but it was used without avail in the other cases; and I am, consequently, unable to indicate a plan of treatment adapted to all cases of the disease.

General Summary.—Number treated in the quarter, 499; ratio per 1,000 mean strength, 929; deaths, 3.

In conclusion, it may be interesting to remark the influence of this long march upon the healthy, prudent, and temperate men of the command. They constantly improved in physical

vigor and endurance, always performed their arduous duties cheerfully, and, at the termination of the march, had the *mens sana in corpore sano*.

Notwithstanding the large proportion of sick, I am gratified to be able to state that a considerable number never came upon the sick report; but, unfortunately, these were exceptions to a general rule. Many of those weak, ailing, and unpromising recruits, though frequently sick, have been greatly benefited by the constant, regular, and laborious marching.

I am, therefore, well assured that the eight companies of the Tenth Regiment of Infantry are in a vastly better physical condition this 30th day of September than on the 18th July when they marched out from Fort Leavenworth, *en route* for Salt Lake City.

SANITARY REPORT—CAMP SCOTT.

Assistant Surgeon Roberts Bartholow: December, 1857.

Camp Scott lies along Black's fork, in the vicinity of Fort Bridger. This camp is the winter quarters of the army of Utah.

Black's fork, a tributary of Green river, is a rapid mountain stream of inconsiderable size, but whose water of crystal clearness and purity is immensely valuable in this arid and thirsty region. The valley has an average width of about one mile, and is separated from the higher table-land by a range of irregular sand hills. The creek is winding, with numerous channels, which at the annual rise are overflowed, inundating the whole valley. The soil of the valley is a mixture of sand, alluvium, and vegetable loam, having but little depth, and interspersed by immense quantities of rubble stone; sand predominates. In the vicinity of the camp, upon the banks of the stream, magnesian limestone (dolomite) and slate-rock crop out. A considerable portion of the valley is covered by a thick growth of a species of willow, (*Salix herbacea*,) with here and there a grove of cottonwood, (*Populus canadensis*,) and that miserable shrub, the artemisia. The valley during spring and summer is covered with an abundant herbage, and offers a most striking contrast to the barren waste on either side. Cultivation, however, has not produced very great results to Mormon enterprise. Besides the potato and some of the most common of the leguminiferae and cruciferae, I am not aware that this people have succeeded in their agricultural attempts, and consequently the colony established at Fort Bridger procured their principal supplies in the Salt Lake valley. This region, as well as the Great Plains, like the Steppes of Tartary, is adapted only to herds and grazing, and a nomadic population of savages or Indian traders, with their squaws and cattle, or Mormon freebooters; it can never become a nursery of civilized heroes; and thus in the New World, may be revived, in somewhat the same form, the ancient patriarchal life, now almost extinct in the Old. From the very necessity of their position, the wretched inhabitants must prey upon the rest of mankind, and procure by violence and rapine that subsistence not to be wrung from the unwilling soil.

Exclusive of the Mormon population, now gone into Salt Lake valley, there are two classes of inhabitants—Indians and traders—of whom the former are infinitely more respectable, humane, and gentle. Two tribes belong to this country; the Utah and the Snake Indians, long at animosity, but between whom during the present winter some sort of peace has been made. There are no special differences in these two tribes in habits or character, nor do they differ in physical development. I was unprepared to witness in mountain tribes, remote from civilization, so many evidences of decay. In stature they are low, square built, and without symmetry, ungainly in gait, and having an appearance of premature age. The face is triangular, mouth large, cheek bones prominent, forehead low and retreating, hair black, coarse, and very thick. As a rule, the squaws are more athletic and vigorous than the men, but are far from approaching any elevated standard of beauty. Both these tribes, so far as my observation extends, are very debased, having none of the refined sentiments attributed to Indian heroes in Hiawatha. In fact, the Indian races are yielding to a destiny, not the result of contact with a more vigorous

race, but an immutable law of nature. Having served their purpose in the social economy of humanity, they are made subject to a process of change, impressed not only upon the earth, but its various nations and empires.

The class of traders, of whom not a few reside in this valley and the neighboring valleys of Smith's fork, Henry's fork, and Green river, are a peculiar people. Having, early in life, fallen out with the restraints of civilized society, or exiled by crime, they quickly adapted themselves to a careless and indolent life in the mountains. They commence their career by taking, in Indian fashion, a squaw or two, who perform all the labor, whilst they hunt game, rob upon the public highway, steal cattle, or trade in whisky and tobacco with the Indians. When not engaged in these delectable employments they sit in listless indolence around the wigwam fire smoking a pipe, or lay outstretched upon the ground basking in the sun. They manifest extraordinary activity, notwithstanding their native indolence, at any prospect of pecuniary gain, undergoing, with great intrepidity, danger, suffering, and even facing death itself, where the reward is commensurate. Their principal talent lies in romancing, in which they greatly excel, very much to the prejudice of a character for veracity. By long association with the Indian tribes, they have learned much craftiness, and the art of lying with so unmoved a countenance that it seems more natural than the truth. The Indian wives of the traders are models of industry, perform all the manual labor, and are very attentive to the wants and wishes of their lazy lords. Usually exceedingly prolific, around every wigwam may be seen crowds of dirty half-breed children playing as noisily and in somewhat the same mode as civilized children everywhere. A case of novelty to the Indians is the twin offspring of a traders' squaw, now wintering at Camp Scott. These twins excite the astonishment of the most stoical Indian. A similar case having never occurred among them, they attribute some supernatural virtue to the trader, and style him, in their language of compliment, "a medicine man." The squaws manifest as much affection for their offspring as the most devoted of civilized mothers—an affection tender, sympathizing, and indulgent. If we form an opinion of the mountain men from the reports of poetic explorers we would probably accord them many virtues—integrity, steady friendship, a noble sense of justice, and high personal bearing. I did not find the original of this description in real life. They have some of the good qualities of the Bedouin Arab, many vices to which he is a stranger, but not many of the virtues of a good citizen. A country like the Great Plains, which has its analogue in the deserts of the East, would be incomplete without that other characteristic—a wandering people having a strong thirst for plunder, and acknowledging no law but the *lex talionis*.

My observations upon the climatology of this country have had but a limited scope, extending through the fall to mid-winter. I have been very agreeably impressed, thus far, with the comparative mildness of the climate. Minus 18° Fahrenheit is the lowest degree to which the mercury has yet fallen, and that was during the month of November; a degree of cold not since experienced.

The greater part of the month of October, during which the army was encamped upon Ham's fork, the atmosphere had that peculiar softness and haziness characteristic of the Indian summer. At the close of the month snow fell to the depth of four inches, but, under a warm sun, disappeared in a few days. From the 1st to the 20th November the cold became severe and snow-storms were frequent; but from this time to the termination of the month many of the days were warm and pleasant. The month of December was characterized by several snow-storms, not severe or protracted. These storms were remarkable for their regularity, both as to recurrence and duration. They continued usually about forty-eight hours, and the fall of snow but seldom exceeded two inches. Higher up within the mountain ranges snow-storms prevail almost daily, and the snow has already fallen to very great depths, blocking up the passes, and rendering communication with the States extremely difficult if not impossible. Looking up into the mountains from the valley, some of the most magnificent exhibitions may

be daily witnessed. Whilst the sun shines warmly upon the creek bottom, the snow-clouds drift along the mountain tops, discharging their fleecy showers. Anon, the clouds float away, and the mountain peaks glisten in the bright sunshine like burnished silver, contrasting beautifully with the dark green of the pine-covered hills far below.

One distinguishing feature of this climate is its equability and dryness. No sudden transitions have been observed, and during the winter proper, whilst the cold has at no time been severe, the thermometer has rarely risen above the freezing point. The absence of moisture is well shown by the dryness and contraction of all kinds of woodwork, and the freedom of surgical instruments and arms from the slightest traces of rust.

Before going into winter quarters the arrangement of proper hospital accommodations was a frequent subject of anxiety. Our anticipations of severe weather were heightened by reports of the extraordinary severity of the two preceding winters. Timber not being sufficiently abundant for building purposes, the ordinary hospital tent had to be arranged for the winter. I was much surprised as well as gratified at the results produced by the means at my disposal. With an ordinary sheet-iron stove at one extremity, an adobe chimney at the other, and a flooring of hides, the hospital of the volunteer battalion has a degree of comfort quite beyond expectation. Thus far, as singular as it may appear, no difficulty has been experienced in maintaining a sufficiently high and equable temperature. Wintering in the Rocky Mountains, with no other protection from the cold and storms than an ordinary canvas tent, would excite the incredulity of any one unacquainted with the country except by the reports of imaginative travelers. Granting that life might be maintained under such circumstances, most men would be ready to assert that such an existence would be intolerable. I do not find that the army of Utah suffer any extraordinary hardships. Many of the officers live in wall tents, variously arranged, according to individual peculiarities of tastes and habits, and heated by sheet-iron stoves to a very agreeable temperature; some of them in a combination of the wall and Sibley tent. Some burrow in the ground; others hide within the ample coverts of the thick growing willow. A great many ingenious appliances to comfort have been contrived, not only as regards interior use and decoration, but as a protection externally against storms.

Curiously wrought chimneys, unexpected stoves, and marvelous chairs and tables, demonstrate how great a virtue may be made of necessity. The enlisted men are quartered in Sibley tents, an invention suggested by the wigwam of the Sioux, and now for the first time used in the military service. They are decidedly well adapted to the use for which they are designed by the inventor, which the severe test they have been subjected to during the present winter sufficiently demonstrates. Twenty men may be accommodated in each tent, but if proper regard be paid to comfort and convenience, sixteen is a large enough number.

The company kitchens are, I believe, without exception, built of logs, and have adobe chimneys, are cleanly kept and well arranged.

Some of the trains containing supplies for the army having been stopped by the approach of winter, a necessity arose for the reduction of the rations, and for a limitation to the same standard of the sales to officers. It is a favorite theory with chemical physiologists that to maintain the animal heat in high and cold latitudes requires an increase in the amount of carbon consumed, and this theory is found to be correct both by observation and experiment. It became necessary, however, to diminish, in the Rocky Mountains, in winter, an amount of nutriment not considered superabundant in less rigorous climates. With what result? Those who have been accustomed, habitually, to consume much larger quantities of food found that the ration, as reduced, by proper care, was sufficient to sustain the body in a state of active and vigorous health, even under considerable fatigue and exposure. I find no one, except some civil functionaries, who carry any superfluous fat in the cellular tissues; consequently, I opine, none of the military have a superabundance of food and leisure to favor such deposit. The deprivation of salt, at first, more than any other article, excited bitter complaints, but gradually

the desire for its use wore off, and when a supply of what before was considered a *sine qua non* arrived it did not arouse so great an interest as might be imagined. Entire abstinence from salt is not incompatible with the most perfect health, of which numerous examples are afforded by the mountaineers, traders, and others, who, though accustomed to its use early in life, lose, eventually, all inclination for it. Notwithstanding these apparent privations, the army does not suffer from any important diseases. Military duties are sufficiently numerous to prevent the vices attendant upon idleness, and various amusements have been judiciously introduced to give zest and variety to a life which might otherwise prove irksome. Balls, concerts, and theatrical entertainments, though not properly subjects for a medical report, are, nevertheless, deserving of mention as means of employing leisure which an idle soldiery might expend in various acts prejudicial to health.

From all the foregoing statements I conclude that, how deficient soever this region may be in the more humanizing influences, it has at least the great merit of being extremely favorable to health and longevity. There are two diseases which occasionally prevail—erysipelas, in an epidemic form, and mountain fever, of which I shall have something to say in a subsequent part of this report. As spring is the season at which the erysipelas prevails, I have had no opportunity of observing it. Beside these, I know of no diseases which may be said to have characters peculiar to this country. Small-pox and syphilis make great ravages amongst the Indian tribes, but they do not differ from the same diseases elsewhere.

A question well worthy of consideration: Is this climate adapted to the amelioration and cure of the tubercular diathesis? As phthisis is annually on the increase in the United States, and as the subject of its hygienic management proves to be more important than the treatment by medicaments, the consideration of the climate is, necessarily, of the first consequence. In my report for the third quarter I remarked the beneficial influence of the journey over the plains upon those in whom "a phthisical tendency was marked and imminent." The purity of the atmosphere and the equability and dryness of the climate are conditions highly favorable to such improvement. The entire immunity of the mountaineers from all forms of pulmonary disease indicates the healthfulness of the country in this particular. Moreover, the various commands stationed at Fort Laramie have been remarkably free from all forms of pulmonary disease, and all such as came thither laboring under the incipient or well-established symptoms of consumption speedily improved. Assistant Surgeon G. K. Wood, in a report from that post upon this subject, remarks:

"The climate of those broad and elevated table-lands, which skirt the base of the Rocky Mountains on the east, is especially beneficial to persons suffering from pulmonary disease, or with a scrofulous diathesis; * * * * that more is due to the climate itself, is shown by the fact, that among troops stationed in this region (whose habits are much the same everywhere) this class of disease is of very rare occurrence."

The present superintendent of Indian affairs for the Territory of Utah, (Dr. Forney) assures me that the journey over the plains and residence at Camp Scott has relieved him almost entirely from certain alarming symptoms of phthisis with which he set out. To an improved hygiene, inseparable from a life upon the plains, may be attributed much of the benefit experienced in these cases; to the dryness and equability of the climate much more. This is no doubt a part, but not the whole of the truth. In my recent examination before the Army Medical Board, this question was propounded by Surgeon McDougall: What influence has elevation upon respiration and pulmonary disease? To the latter part of the question, I replied, that the improvement in pulmonary disease, was, in my opinion, due to improved hygiene; but, as the examiner remarked, this did not express the whole truth, since at considerable elevations, determination took place to the surface, thereby relieving internal congestions—a consideration of much importance, and quite as obvious as important. From these facts it appears to me evident, that to the subject of an hereditary or acquired predisposition to consumption, the Great Plains

and the mountains offer more certain relief than any other climate in our country. A journey over the plains is not so formidable an enterprise as a few years since; it can be made now both with safety and celerity. As the overland route to California, the main roads are being constantly traversed by parties going and returning, so that the invalid would have no difficulty in availing himself of the protection afforded by these.

I conclude my present report with an account of an epidemic of periodical fever, mentioned in my report for the third quarter, as having commenced soon after our arrival upon Ham's fork. To the unusual fatigue which the Tenth Infantry had undergone in a highly rarified atmosphere, I was disposed to attribute a predisposing influence. Several cases had happened upon the march along the Platte valley; but from Fort Laramie to Ham's fork, the poison, if it existed among the command, was in abeyance. I also remarked that if we can predicate the occurrence of malarial diseases upon peculiarities of soil, temperature, and productions, then may the Platte valley be considered a settled habitat of malaria. The valley of Ham's fork, is in many respects similar to the Platte valley; the soil consisting of sand intermingled with an alluvial deposit and vegetable loam; the banks of the stream fringed with the willow and cottonwood, and being subjected to periodical overflow. It differs, however, in a material respect—in elevation.

After the termination of the third quarter, we continued for some time upon Ham's fork, moving occasionally a few miles for better grazing. For the first half of the month of October, the weather was warm, and the atmosphere had all those peculiarities which unite to constitute "Indian summer." It was during this period that the Tenth Infantry suffered so severely from the intermittent and remittent fevers. The intermittents, if not quickly controlled by the heroic administration of quinine, passed into the remittent, whilst the remittents tended to assume the typhoid type. These fevers differed in no respect from the same forms of disease in the low country, if I may except this adynamic tendency. The type of the fever was usually quotidian, the remission occurring in the morning. A large proportion of the cases commenced by a severe rigor, variable in duration. During the exacerbation the pulse was full, soft, and sometimes dicrotic; skin hot and dry; tongue heavily furred in the centre, red and dry at the tip and edges; no sordes accumulated. There were present, also, intense cephalalgia; severe aching in the back and limbs; suffusion of the eyes; loathing of food; and sometimes nausea and vomiting. At the acme of the exacerbation in some cases, I observed delirium, sometimes noisy and violent. In the remission the debility was considerable, accompanied by listlessness and indisposition to the slightest exertion; countenance dull and tinged a peculiar dirty yellow; pulse small, quick, and feeble. Diarrhœa was in all cases a persistent symptom, requiring astringents. The stools were thin, dark brown, greenish, or black, and very offensive in odor. Large doses of quinine were not only borne with impunity, but absolutely required; and I had the most satisfactory evidence of the power of the anti-periodic in jugulating the febrile action. Ten, fifteen, or twenty grains administered at a single dose during the remission, manifested all the antidotal power observed in malarial regions, except in a few cases, which, uncontrolled, passed into that adynamic condition, by common consent denominated typhoid—a state characterized by extreme muscular debility, low muttering delirium, subsultus tendinum, &c. Two of the cases thus protracted proved fatal.

These are the facts: Intermittent and remittent fevers occurring at an altitude of 6,240 feet above the sea manifesting all the phenomena of similar or identical forms of disease in low countries and controlled by the same remedy. In the consideration of these facts three questions arise:

Is this periodical fever a distinct and peculiar disease, to be properly designated as mountain fever?

Is the poison malarial in origin and brought into the mountains in a state of incubation and there developed by a process of zymosis?

Is malaria a product of this region?

A remittent febrile affection, denominated the "mountain fever," is described by Dr. Ewing, in the *St. Louis Medical and Surgical Journal*, for March, 1855, as a disease peculiar to the elevated regions of the Rocky Mountains. He considers it as totally distinct from the fever of malarial origin, but it seems to me upon insufficient grounds. He founds his differential diagnosis upon the accident of situation and the absence of nausea in the mountain fever. Upon a careful consideration of his description, I do not find that the mountain fever differs very materially from the febrile disease herein described, and I make no doubt what Dr. Ewing saw was precisely what it has happened to me to see. We differ as to nomenclature and as to cause. The term "mountain fever" is in common use among the hunters and trappers; but, certainly, rarity of air cannot be considered as a cause of disease, as Dr. Ewing intimates, in those who have been long habituated to it; nor has this cause in any other mountainous region, as far as I can ascertain, produced similar effects. Moreover, the coincident occurrence of intermittent fever evidently indicates a different origin. The cause must, in my opinion, be sought elsewhere than in rarified air.

A certain fact with regard to the behavior of malaria, long known, may be adduced in explanation of this apparent anomaly. It is well ascertained that the poison may be conveyed from a low country, where the usual developments may or may not have occurred, to a high, salubrious, and mountainous region, where all the phenomena of this species of poisoning are made manifest. This circumstance has not unfrequently occurred, it is not a matter of opinion, and *may* explain the occurrence of the epidemic herein recorded; but not with absolute certainty. Upon inquiring into the previous history of the cases of fever, I find some who have been living in malarial regions; some residents of the northern States, where malaria is unknown; all, however, transiently exposed to it at Camp Walbach, on the Missouri, and along the valley of the Platte.

The third inquiry—Is malaria a product of this region?—may be considered as an altogether absurd inquiry, so antagonistic is it to the commonly received doctrines upon this subject. I have already intimated my opinion that many of the conditions usually considered necessary to its elaboration exist in these mountain valleys. The constitution of the soil, productions, periodical inundations, &c., render the similarity between them and the low malarial countries striking. Having these conditions, let it be supposed that there prevail for several months a continuously, high temperature—not improbable either—might not the peculiar ærial substance known as malaria become developed? Not, it may be, *constantly* at the ordinary season, but capriciously at long intervals, when, as it may but seldom happen, various coincident circumstances conspire to develop it. At all events, the subject is deserving of some attention.

The second inquiry, according to present received doctrines, explains most satisfactorily the occurrence of periodical fever in the elevated regions of the Rocky Mountains; but if we deny that malaria can be here elaborated, many anomalous circumstances remain unexplained. Notwithstanding there is much known with certainty upon this subject, more continues obscure, and we are consequently continually surprised by new phases and unexpected developments.

I have been thus particular in recording in this and a preceding report the history of this epidemic, not in the vain expectation of adding any new facts to medical science, but the rather of exhibiting old facts under somewhat novel and extraordinary circumstances.

SANITARY REPORT—CAMP SCOTT.

Assistant Surgeon John Moore: December, 1857.

Camp Scott, the wintering place of the army of Utah, is in latitude 41° 18′ 12″ N., longitude 110° 32′ 23″ W. from Greenwich; this is on the authority of observations made by Captain Stansbury, in 1849, 1850, at Bridger's Fort, an Indian trading post near our camp, and now

used as a public storehouse. The altitude of our present position, as near as can be ascertained from geognostic profiles, made, I think, by Captain Beckwith in his railroad survey, is about 7,800 feet. Distance from Fort Laramie, by the emigrant road, over the South Pass of the Rocky Mountains, 440 miles; and from Great Salt Lake City in a northeast direction, 124 miles.

Our encampment is in the valley of Black's fork of Green river, a tributary of the Colorado of the West. The average width of the valley is from one to two miles, with a depression below the surrounding plains of eighty to one hundred feet. The strata in the surrounding hills, so far as they can be seen, are nearly horizontal, consisting of magnesian limestone, clayey and slaty shales, and sandstone. The soil is made up of the detritus of the surrounding rocks intermingled with some vegetable mould. The stream is one of considerable size, water excellent, with a rapid current over a bed of small boulders, composed principally of metamorphic sandstone. It has its source in the Uintah Mountains, a lofty chain some fifty or sixty miles to the south, and whose summits—in plain view from our camp—reach the altitude of perpetual snow.

Clumps of cottonwood, willow, hawthorn, black and white currant, fringe the borders of the stream, and scrubby cedars grow on the escarpments of the hills, some three or four miles distant. It is said that coal has been found in the neighborhood, but none has been seen since our arrival. It is not improbable, however, that it exists, as the red sandstone of the carboniferous period, has been seen cropping out within a day's march of this place. The plains in our vicinity are in no respect different from those extending for hundred of miles on every side of us. They are utterly barren; covered with artemisia, (*Artemisia tridentata,*) asters, and cacti, interspersed with occasional clumps of grass.

Our arrival here was in the midst of winter; and as the ground has been almost constantly covered with snow, but limited opportunities have been afforded for geological investigations. No chemical analysis of the soil has been made, because of the want of necessary chemicals.

In the absence of topographical details, some observations of a more general character may not be without interest. We are encamped in the midst of the "Great Basin" of Fremont; in speaking of which, it is perhaps not generally known that the term "Great Basin," is applied to one of the most remarkable plateaus on the surface of the globe; being greater in area and almost if not equal in altitude to the table-lands of Mexico. In a direction east and west, it extends from Fort Laramie, which is at an altitude of 5,300 feet, to the Wahsatch range of mountains some fifty miles to the west of our camp; and in a course north and south, from the thirty-fourth to the forty-fifth parallels of latitude.

From Fort Laramie to the South Pass, there is a gradual but constant swelling of the ground to the "divortia aquarum," or culminating ridge, where it attains an altitude of 7,490 feet. The distance between these two points is about 300 miles. Although this is an elevation greater than that of the famous passes of the Simplon, (6,576,) of the St. Gothard, (6,865,) and but little short of that of the Great San Bernard, yet the ascent is so gentle as to be scarcely perceptible, and, without artificial improvement, to afford a beautiful road for every description of wheeled carriage. In thus offering an easy communication between the valley of the Mississippi and the growing States on the Pacific, it exerts an important influence on the social progress of the country, and there can be little doubt that a region so elevated and so extensive in length, corresponding to the distance from Maine to Georgia, and in altitude varying from 5,000 to 8,000 feet, must exert an important climatic influence on the portions of the continent to the east and south of it.

Flora.—Of the botany of this locality I am unable to add anything to the few specimens already mentioned as skirting the stream or covering the plains.

Fauna.—Animals, with the exception of the large and small prairie wolf, rabbits, and hares, are not numerous during the winter. The black and grizzly bear are occasionally met with in the mountains. In the more protected valleys to the north and south of us the common and black-tailed deer, elk, and antelope are found. The following, though not abundant, are

sometimes seen, viz: Rocky mountain sheep, red fox, grey fox, mink, ermine, badger, muskrat, beaver, prairie squirrel. Few birds have been seen since our arrival, except the crows, ravens, and turkey-buzzards attracted by the offal of the slaughtering pens around the camp; but in summer I am told that wild geese and ducks of various kinds, among which are the mallard and the greenwinged teal, with other migratory birds, are numerous.

Any attempt to enumerate either the flora or fauna, from such limited observations as could be made in a few weeks in the rigor of winter, must necessarily be incomplete. Any omissions in this respect can be supplied by some future observer, as measures are being taken to establish a permanent military post in this neighborhood.

From the old hunters I learn that the buffalo (*Bos americanus*) has not been seen west of the Rocky Mountains within the last thirty years, although, previous to that time, this country was one of his favorite feeding grounds. This is attested by the numerous skulls and other portions of his skeleton found bleaching on the prairie in every direction over the valley included between the Rocky and Sierra Nevada mountains. The fact is familiar, that he has retreated before the advancing settlements from Virginia and Kentucky, to his present habitat on the plains of the Missouri and Arkansas rivers. But it would be interesting to know why he has abandoned the plains west of the Rocky Mountains in *advance* of civilization. The only explanation I have heard of a phenomenon so singular, is, that about thirty years ago they were all killed by an unusually severe winter, and that subsequent to that time they have never been seen here.

Indians.—When Bridger's Fort was used as a trading post, it was frequented by the Shoshones or Snakes, whose wintering place is some hundred miles to the north of our camp; and by the Uintahs and Utahs, about the same distance to the south. Owing to the scarcity of provisions, they have not been encouraged to visit us; in consequence I have rarely seen them, and so know little of their customs or diseases. In regard to the Snakes, I have been assured by old hunters, who have spent a considerable portion of their lives among them, that within thirty years past, they have been reduced by epidemics of small-pox, from 900 lodges to a fourth of that number. Their treatment for this as for almost every other disease, consists of hot vapor baths, followed immediately by plunging into cold water. The result in almost every case fatal. They believe that the disease was designedly introduced among them by the Hudson's Bay Company. Syphilis is a very common and destructive disease among them; but whether of domestic origin or foreign importation, seems uncertain.

From these same hunters I learn another interesting ethnological fact, which is, that their language is identical with that of the Camanches, inhabiting Northern Texas, except in reference to the names of such animals or implements, as have been introduced among them since their contact with the white man. Thus proving beyond question, that prior to this event, these two tribes, now so far removed from each other, with other tribes intervening, were one and the same.

I have seen it somewhere stated, that the Camanches have a tradition that some four or five centuries since, their ancestors emigrated from South America; whether the Snakes have a similar tradition, I have not been able to learn. It is not improbable, that this similarity of language between tribes so remote from each other, may be well known; but being new to me, I thought it of sufficient interest to be mentioned.

I will now speak more immediately of that portion of the command, with which I am serving. From the first of the present quarter to its close, the Tenth Infantry in common with the Fifth, have been exposed to more than the usual hardships of active service in the field, in a winter climate of unusual severity; and during the first part of the quarter, many of the men were poorly clad, and furnished with a very limited supply of blankets.

The vigilance required for the protection of long trains of wagons, and large herds of animals, from the marauding attacks of Mormons, who were daily seen in our neighborhood,

made it necessary to mount large guards, for a time only allowing the men two or three nights in bed in the week. For several days, during the early part of October, the thermometer ranged in the hottest part of the day, from 80° to 90° in the shade, the nights at the same time being below 32°. The regiment was then encamped on Ham's fork of Green river, at an elevation of about 6,000 feet. An encampment of ten days was made here. During this time two companies were on guard nightly, and the whole command drilled three or four hours daily. The great alternations of temperature experienced during these hot days, told on the health of the men. Fifteen of the twenty cases of malarial fever, and two-thirds of cases of diarrhœa, reported for the quarter, occurred here. From the previous history of those attacked with remittent and intermittent fever, together with the nature of the locality in which it occurred, I am convinced it was due to exposure on the Missouri or other miasmatic regions, before leaving Fort Leavenworth. From men who have lived for fifteen or twenty years in this country, I learn that fever and ague is entirely unknown as an indigenous disease.

Between the 20th October and the 10th of November, while on the march, we had four or five falls of snow, each varying from two to five inches in depth. About the latter date, the arrival of a large train with clothing, tents, &c., afforded the means of making the men much more comfortable than they had been previously. The conical or Sibley tent was issued to the whole command in place of the one before used, the common bell tent. This new tent, in cold weather, will very comfortably accommodate twelve or fifteen men; and having an aperture at the top for the escape of smoke, a cheerful fire may be built in the centre, either on the ground, or in a pot, or in any other method that ingenuity can devise.

In a climate like this, where men are to winter under canvas, the Sibley tent I think a great improvement over any heretofore in use in our service.

From the 10th to the 15th of November, the thermometer, at 7, A. M., ranged from —4° to —16°. Some ten or twelve men, while on guard or picket, had their feet and toes more or less frozen. All recovered without loss of substance, except one. In this the last phalanx of the four lesser toes sloughed off. In addition to the remedies usually employed, the fresh gall of the ox was used with great benefit in all cases where the injury was superficial. It was applied as a liniment, or by pieces of lint saturated with it.

On the 20th of November the whole body of the command had reached this camp, having been sixteen days in making the last fifteen miles. The weather was excessively cold, and the Tenth Infantry coming up in several detachments, as escorts to ox trains, were often detained until midnight on the road, and when, half frozen, they reached the camp, had then to pitch their tents on the snow, and seek that rest so necessary after the day's fatigue, and which only the weary can know. As an indication of the severity of the weather on this last part of the march, it may be stated that in making the last sixteen miles before reaching this camp, more than two thousand of our animals died from cold and starvation. Notwithstanding all this exposure, the number of sick was much less than during the warm weather in the early part of October. Since the arrival of the regiment at this camp, the soldiers have been as comfortable as it is possible for men to be in tents. They are not required to go on guard oftener than once a week; but as all our animals have been sent to a distant grazing ground, our wood has to be hauled by the soldiers from a cottonwood grove two or three miles distant. This, with drilling and the ordinary police duty of the camp, keeps them for the greater portion of each day in the open air. As the weather, although cold, has been dry, bracing, and sparkling, this outdoor exercise has, without doubt, been of great advantage.

No new cases of scurvy have occurred during the present quarter, and all those reported in the previous one are either well or recovering. This immunity, I think, is probably due, in a great measure, to the desiccated vegetables supplied by the commissary department, in praise of which, as a wholesome and agreeable addition to the ration, too much cannot be said. In consequence of the limited supplies on hand, the entire ration has been reduced one fourth, with

the exception of beef; this has been increased to two pounds. It is, however, of a very inferior quality, being the flesh of the oxen that were used in drawing our train from Fort Leavenworth, a distance of one thousand miles. For nearly two months past no salt has been issued; but up to this time I have seen no bad effects from this reduction of the ration. If scurvy should not make its appearance in the spring, the exemption will be one of the most remarkable in the history of the army.

For hospital, I have one hospital tent and three Sibley tents. The Sibley tents I have floored with dry beef-hides, which keeps the bedding from the dirt and dampness of the ground, as well as adding materially to its warmth. In one of these tents six or seven men can be made more comfortable than in any other method heretofore adopted in the field.

SANITARY REPORT—CAMP SCOTT.

Assistant Surgeon Aquila T. Ridgely: January, 1858.

In accordance with existing regulations, I have the honor to submit the following remarks, to accompany my quarterly report of sick and wounded for the fourth quarter of 1857:

During the whole of the quarter now ended, the Fifth Infantry has been engaged in military operations within the Territory of Utah. Until November 17 they were actively employed in the field. The almost constant presence of the enemy, who hovered about our flanks in small bodies, endeavoring to cut off stragglers from the command and seize upon animals, caused the duty of the men to be excessively arduous, and entailed upon them much exposure to the elements. In consequence of there being no mounted force with our army, until after the 2d of November, the Mormons, who were upon good horses, were very bold, and could only be kept beyond the range of our small arms. This rendered it necessary to have large guards with the mules and oxen, and to post pickets upon commanding heights by night as well as by day, in cold weather as well as in warm. The scarcity of grass and the consequently large range required, made the duty doubly onerous. The long line of our ox trains likewise demanded protection, and frequently several companies would not reach their tents until after the night was far advanced. Occasionally the morning would find them absent from the camp, and more than once, I believe, they have passed two consecutive nights upon the road. All this has been performed when the thermometer indicated a temperature considerably below zero.

Since the arrival of the command at its site for a winter encampment, its condition has been much ameliorated. Nevertheless, its task continues to be a hard one. The sustaining of outposts and pickets, the maintenance of a strong guard, and the procurement of fuel, tax all the energies and almost all the time of the soldier.

The climate of this region is certainly a cold one. Never have I seen such severe weather, at the same period of the year, as we experienced in October and early in November. Upon the morning of October 19 the mercury stood at 4° Fahrenheit; upon November 5 the mercury was at ½° Fahrenheit; upon the mornings of November 12 and 14 the mercury stood at —17° and —13° Fahrenheit. It may be stated, in general terms, that the cold was extreme and unseasonable during the month of October and a large part of November, during which time we were upon the march.

The snow commenced to fall early in October, and was frequently repeated during the campaign.

Upon the night of October 17 it covered the earth to the depth of about one foot in and around our camp. Sometimes it was accompanied with drifting particles and a strong cold wind, which were difficult to face; but the necessities of our situation admitted no delay, and we were compelled to move onward.

Since our arrival at Camp Scott, contrary to all expectation based upon the past, the winter,

though regularly cold, has been moderately so. The mercury has not, I think, been lower than —12° Fahrenheit, although frequently it is but little above zero or somewhat below it.

The troops are quartered in the Sibley tents. These, as they admit of a fire within them, around which their occupants can sit and keep warm, and thus forget the storm without, are vastly more comfortable than the tents previously furnished. Those officers who possess stoves, with an adequate supply of stovepipe, almost universally prefer the wall tent for their own residence, but, as soldiers are seldom in enjoyment of such luxuries, I deem the introduction of the Sibley tent the greatest boon which has, of late years, been conferred upon them. It is to be hoped that the Quartermaster's Department, with its accustomed liberality, will, at an early date, authorize the issue of these tents to laundresses and the servants of officers, as the health of these individuals is surely entitled to some consideration.

The hospital accommodations of the regiment consist, at present, of one hospital tent and three Sibley tents, but will doubtless be enlarged should the number of sick render it desirable.

The clothing of the men has been sufficient, so far as my knowledge extends.

The cleanliness of their persons has not been remarkable, in consequence, I suppose, of the difficulties attending the performance of ablutions.

They have usually been temperate, as they seldom obtained the means of intoxication.

Notwithstanding the hardships and exposure to which the men have been subjected, the health of the command has been good. The ratio of sickness is not large, and of those reported a very considerable proportion are classed under the heads of "wounds and injuries."

Of the 202 persons taken sick, no less than twenty-one suffered from frost-bite, or almost ten per cent. of the total number treated. The frequent occurrence of diarrhœa during the months of October and November, I attribute principally to the deprivation of the men from the use of common salt as a condiment, and to the fact of the meat ration consisting chiefly of fresh beef. The alimentary canal having been accustomed to the stimulus of salt, probably required its presence for a due enervation of the tissues concerned, and its withdrawal was followed by a consequent relaxation. By the month of December the system had become reconciled to the new order of things, and upon that month the number of those affected was only one half as great as upon the previous month.

The fewness of the cases of serious thoracic diseases may be among the good effects resulting from the employment of the Sibley tent. This tent, being open at the top, permits the free escape of heated air, the place of which must be supplied from without. This produces a constant though imperceptible current of air through the apartment, and, by preventing it from becoming unduly heated, renders the change less great to one upon emerging from it into the open atmosphere. It may be, too, that the perpetual renewal of oxygen imparts to the lungs a healthy tone, which renders them less impressible to vicissitudes of temperature and other disturbing causes. The absence of scorbutus is a gratifying feature in the accompanying report. I have seen a few symptoms of this disease among those who were sick from other complaints, but it has chiefly been in the persons of employés of the staff departments. This immunity is probably the result of the occasional issue of desiccated vegetables to the men. It is to be hoped that subsequent experience will confirm this opinion.

Camp Scott is situated upon Black's fork of Green river, one and three quarter miles above Bridger's Fort, and about one hundred and ten miles from the city of the Great Salt Lake. The stream is a mountain torrent, and has a fall of many feet per mile. The water is pure and pleasant to the taste. The banks are skirted with a wide growth of willow bushes, with here and there a grove of the bitter cottonwood, interspersed with a few stunted box-elders. The neighboring hills have, in places, dense groves of cedar within their ravines and upon their slopes. The distant mountains are also partially covered with heavy growths of timber. I have not been to them, but I imagine that the pine and fir predominate.

The valley of Black's fork at this point does not exceed half a mile in width, and, owing to

the tortuous course of the stream, we are, to a great extent, sheltered from the winds by the high hills or bluffs which arise immediately from the valley. Beyond these, to the southward and to the westward, may be seen the lofty peaks and elevated ridges of the Wahsatch mountains, nowhere, probably, less than twelve miles from our camp.

The dazzling whiteness of their summits, compared with the dark green of the forests below, forms a beautiful and pleasing contrast. Owing to the presence of the snow and the inclemency of the season, I have not been able to investigate the geological peculiarities of the vicinity.

Magnesian limestone has been found in abundance in the neighborhood.

SANITARY REPORT—CAMP FLOYD.

Assistant Surgeon Aquila T. Ridgely: September, 1858.

Early in July the command moved from its encampment upon the Jordan, near Great Salt Lake City, and occupied temporarily a position at the head of Cedar valley, and about forty-one miles from the city above mentioned, in a southwesterly direction. Upon and about September the 8th, the army marched down the valley, twelve miles in a southerly course, and located upon the site designated for the permanent camp. Adjoining the camp is a small Mormon settlement. In front of the left portion of the camp, arises a large spring, from which a small rivulet flows to the distance of a few miles, when it spreads out upon the surface of the earth, and ultimately disappears. Near the head of the stream an acequia has been constructed, which leads into the Mormon field, and by means of many smaller ditches, serves to irrigate the land.

The stream is at times sluggish, and its surface almost hidden by aquatic plants. The water of the acequia moves with celerity and regularity. It is more than probable that pestiferous miasmata are exhaled from the stream and from the marshes which it forms. Hence, in part, perhaps, have arisen the cases of fevers reported in the table. About 1,600,000 abobes have been made upon the outskirts of the camp, and it is possible that the exposure of so much virgin earth may have had a deleterious influence upon the health of the troops. The soil is principally of adhesive clay, such as is adapted to the formation of adobes. Except in the vicinity of the stream, the irrigating ditches, or the marshes, no grass is to be found within several miles of the camp: the ground affording but a stunted growth of greasewood and of artemisia.

Cedar valley is from thirty to forty miles long, and from one to ten miles in width. It is surrounded by mountains. There are passes, however, to Rush valley on the west, and to Utah valley on the east. There are but two settlements in the valley. The inhabitants cultivate the land exclusively by irrigation. It is my opinion, that no locality suited to farming purposes remains unoccupied.

The days have usually been hot and the nights cold. Never before have I seen the difference so extreme between the temperature by day and that by night. This cause must have had a powerful influence in the production of disease.

There has been a considerable amount of sickness among the inhabitants of our neighborhood. Hundreds left their homes and came to the army, for the purpose of seeking employment in making adobes, and so forth. They were generally much exposed to the weather, having at best, but the imperfect protection of a wagon. The diseases which I found most prevalent were pneumonia, dysentery, diarrhœa, and periodical fevers. One case of erysipelas was fatal.

The troops have been employed in the erection of temporary quarters. Some of them have been in the mountains engaged in cutting the timber for the houses, but the larger portion have been working at the buildings.

As the adobes were furnished by the Mormons, the labor of the men has not been arduous. Before our removal from the temporary encampment the recruits, comprising more than one half of the regiment, were drilled several times each day.

The diet of the soldier has consisted of the ordinary ration, with certain extra allowances of antiscorbutics. A liberal supply of most excellent vegetables could also be obtained in the market. The men were unaccustomed to this description of diet, and many cases of diarrhœa were thereby induced. This unwished for result was more than compensated for, by the antiscorbutic qualities of the food. Many of the recruits arrived from the States, with evident signs of scurvy, but this condition is fast being dissipated. The water for drinking has been good, and I have not found it to disagree with the men.

The soldiers have been comfortably clad, although I believe there has been a deficiency of clothing in the storehouses. Temperance has prevailed in the camp; but there have been some cases of drunkenness, and consequent sickness. A vile sort of beer was for a time vended by the Mormons, and many cases of diarrhœa were thereby occasioned.

SANITARY REPORT—UTAH TERRITORY.

Assistant Surgeon Roberts Bartholow, September, 1858.

During the past quarter having, in the course of duty, passed over the most important part of the Territory of Utah, I have thought it not improper to speak somewhat upon its medical topography, productions, and upon the social customs of its inhabitants. This report will exhibit one fact with especial prominence—the salubrity of the climate. How far this quality redeems the general barrenness and dearth of interest, is differently estimated according to the temperaments of individuals. It is generally conceded in the army, however, that Utah is a very proper "Zion" for the Mormon community, but for other sentient beings not particularly suitable.

Ranges of mountains, with intervening table-lands and valleys, constitute the general features of the country. In the valleys, hard by the mountain streams, are the only habitable portions of the Territory, and even in these, the labors of life are at the maximum, and the recreations at the minimum. By unremitting exertion, the inhabitants wrest from the soil certain of the cereals and some of the leguminiferae and cruciferae. The soil is sufficiently productive *per se*, but the infrequency of rain, renders irrigation absolutely necessary for the production of crops. The amount of human life which may be sustained in the Territory, depends, therefore, upon the amount of water available for irrigation: unfortunately, this supply is limited. The valley of the Jordan, best adapted for agricultural purposes, is cultivated to a very limited extent, and almost entirely upon the eastern side of the river, for the reason that water is to be obtained, only upon that side. Another circumstance influences the quantum of production. In many situations, the soil contains a very large percentage of the soda, potash, and magnesian salts, and is, in consequence, hopelessly barren. The crops on the fertile and cultivated portions of the country, are not unfrequently destroyed, by a sudden and unaccountable increase in the quantity of these salts.

Whatever of value is produced in this territory, comes by the labor of man. Nature has accomplished little towards enriching the country in the varied productions of the vegetable world. In the spring and early summer, the valleys are clothed in a luxuriant herbage, but as the season advances, the grasses quickly grow sere and yellow, and the whole country becomes arid and dusty. Along the streams occasional groves of cottonwood (*Populus angustifolia*,) and a thick growth of a herbaceous willow are seen, but on the table-lands no vegetation lives, except the wide-spread artemisia. In the mountain ranges, several varieties of the pinus (*Pinus palustris* and *P. abies*) grow, but not abundantly, except in a few situations. Mineral springs, hot, cold, and of all intermediate temperatures, abound. In a geologic point of view, the whole Territory is full of interest; not, at present, in an economic view; not until extended researches shall develop the mineral resources. Judging by the formations usually connected with mineral wealth, the indications are not without certainty. A rigid concealment of these indications,

has been a measure of policy with the Mormon people, who, wisely enough, foresee how injurious an influence the discovery of mineral wealth would exert over their peculiar social, religious, and political institutions.

The most notable feature in the meteorology of Utah, is the almost constant prevalence of high winds. In the valley of the Jordan, owing to some peculiarities in the conformation of the hills, whirlwinds hourly sweep along, carrying up huge columns of sand and dust. This source of annoyance is much less frequent at Fort Bridger than at Camp Floyd. Wind of more or less intensity, however, blows so constantly at this post, from west and southwest, that a calm day is quite a phenomenon. With the rising of the sun, commences the wind, and blows with progressive violence, until about 3, P. M., when it begins to subside, leaving the nights calm and clear. The degree of humidity, as indicated by the hygrometer, is very slight, and rains are unfrequent. As might be anticipated, at an elevation so great as Fort Bridger, 7,010 feet above the Gulf, snow falls during every month in the year, except July and August, and even in those months occasionally.

In the animal kingdom, I have seen but few specimens, except the domestic animals. The mountain fastnesses are frequented by the grizzly bear, (*Ursus Americanus*,) the mountain sheep, (*Ovis montana*,) the skunk, (*Mephitis putorius*,) and the table-lands are tenanted by that curious little animal, the prairie-dog, (*Arctomys ludoviciana.*) Along the various streams, beaver, (*Castor fiber*,) are quite abundant. Other rodentia are occasionally seen, as the porcupine, (*Hystrix cristata*,) hares, (*Leporidæ*,) &c. The following birds are found in considerable numbers: of the columbinae—the turtle dove, (*C. turtur*,) the wild pigeon, (*C. migratoria;*) of the tetratonidae—the sage-hen, (*Tetrao urophasianus*,) the quail, (*T. cotumix;*) of the charadriadrae—the curlew, (*Numenius longirostris.*) The lakes and streams are visited by large numbers of water-fowl, at their appropriate seasons. The following varieties have come under my notice: the wild goose, (*Anser canadensis*,) the mallard duck, (*Anas boschas*,) the green-winged teal, (*Querquedela carolinensis.*) The most important animal here as elsewhere, is that of the order *Bimana*, and genus *homo sapiens.* The Mormon, of all the human animals now walking this globe, is the most curious in every relation. It would be quite beyond the scope of this report to say anything of the political and religious aspects of Mormonism; but as a great social solecism, seriously affecting the physical stamina and mental health, it is full of interest to the medical philosopher. Isolated in the narrow valleys of Utah, and practising the rites of a religion grossly material, of which polygamy is the main element and cohesive force, the Mormon people have arrived at a physical and mental condition, in a few years of growth, such as densely-populated communities in the older parts of the world, hereditary victims of all the vices of civilization, have been ages in reaching. This condition is shown by the preponderance of female births, by the mortality in infantine life, by the large proportion of the albuminous and gelatinous types of constitution, and by the striking uniformity in facial expression and in physical conformation of the younger portion of the community. The "peculiar institution," is practically upheld by the older men, the elders, bishops, apostles, and prophets; and so eager is the search for young virgins, that notwithstanding the prepondérance of the female population, a large percentage of the younger men remain unmarried. To sustain the system, girls are "sealed" at the earliest manifestations of puberty, and I am credibly informed, that means are not unfrequently made use of to hasten the period. The activity of the reproductive function, as a rule, is not diminished by polygamy; on the contrary, the women are remarkable for fecundity; but in the harems the proportion of children arriving at maturity, is much less than in the rural districts of our country. An illustration of this fact is afforded by the results in that chief of polygamists, Brigham Young's case. He has, at least, forty wives. A large number of children have been born to him, a majority of whom died in infancy, leaving twenty-four, according to the most reliable accounts. These forty women in monogamous society, married, would have borne, probably, one hundred and sixty children, two thirds of

whom under hygienic circumstances equally favorable, would have been reared. In Brigham and his wives, we have presented the most favorable conditions for successful polygamy possible in Mormon society, yet, in this instance, the violation of a natural law, has been speedily evinced. One of the most deplorable effects of polygamy, is shown in the genital weakness of the boys and young men, the progeny of the "peculiar institution." The most observant Mormons, cannot hide from themselves the evidence of these sad effects. One of their saints, Heber C. Kimball, in recent sermons, has adverted to this sexual debility, but, with a singular blindness, attributed it to a vicious style of dressing. The sexual desires are stimulated to an unnatural degree at a very early age, and as female virtue is easy, opportunities are not wanting for their gratification. It is a curious fact, that Mormonism makes its impress upon the countenance. Whether owing to the practice of a purely sensual and material religion, to the premature development of the passions, or to isolation, there is, nevertheless, an expression of countenance and a style of feature, which may be styled the Mormon expression and style; an expression compounded of sensuality, cunning, suspicion, and a smirking self-conceit. The yellow, sunken, cadaverous visage; the greenish-colored eyes; the thick, protuberant lips; the low forehead; the light, yellowish hair; and the lank, angular person, constitute an appearance so characteristic of the new race, the production of polygamy, as to distinguish them at a glance. The older men and women, present all the physical peculiarities of the nationalities to which they belong; but these peculiarities are not propagated and continued in the new race; they are lost in the prevailing Mormon type.

If Mormonism received no additions from outside sources, these influences continuing, it is not difficult to foresee that it would eventually die out. The increase of population, independently of large annual accessions from abroad, has not been coequal with the increase in other portions of our country. The results of polygamy here are not to be compared, without some limitations, to the results of the same institution elsewhere: its decadence must follow more speedily. In eastern life, where it has been a recognized domestic institution for ages, women are prepared for its continuance, and do not feel degraded by their association with it. The women of this Territory, how fanatical and ignorant soever, recognize their wide departure from the normal standard in all Christian countries; and from the degradation of the mother follows that of the child, and physical degeneracy is not a remote consequence of moral depravity.

Mormonism, considered in a relation purely sanitary, presents some interesting features. The Mormon theology, contemplates the cure of disease by miraculous interposition; hence, the disciples of the healing art are not held in much estimation. The church authorities are exceedingly jealous at an attempt to cure by ordinary therapeutics, and denounce from the pulpit any invasion of their special province. Though they claim for the "laying on of hands" (*cheirapsia*) wonderful efficacy, the number of deformities, the result of malpractice, to be seen in any of the populous towns, rather indicates a necessity for the use of carnal means. The art of surgery is at a low ebb. Epidemic erysipelas of a virulent form is reported to prevail in this Territory, but, thus far, no cases of the disease have fallen under the observation of the medical officers serving with this army. I have reason to believe that "erysipelas," is a conventional term applied to various dissimilar affections, as rheumatism, erythema, anthrax, &c.

Under the term "mountain fever," a febrile affection, in some respects anomalous, is of frequent occurrence. In previous reports, I have already indicated my belief, that this disease is a form of periodical fever, modified by elevation and other hygienic conditions. As some differences of opinion have arisen among medical officers, serving in this department, as to the nature and causes of the fever, I present a faithful portraiture of it, from notes of cases taken at the bedside.

The fever usually commences by a general feeling of malaise, a sense of weariness, and dull aching in the head, back, and limbs. The patient experiences a sense of chilliness, seeks

the fire, but does not have a distinct rigor. He loathes the sight of food, especially the odor and taste of coffee; has a constant feeling of nausea, and occasionally vomits. The bowels, previously constipated, become relaxed; the stools are dark brown, watery, contain scybalous masses, and are extremely disagreeable in odor. The countenance assumes a dull, despondent expression, a dirty, yellowish hue, with a spot of dark brown in the cheek. The appearance of the tongue is peculiar; in most cases covered with a whitish fur to the very tip, moist and tremulous, like the tongue of delirium tremens. In some instances, the papillae are quite prominent, showing distinctly through the whitish fur like the "strawberry tongue" of scarlatina. The stage of chilliness lasts a variable period, from two to twenty-four hours duration, and passes gradually into the hot stage. Sometimes the hot and cold stages seem commingled, for during the highest febrile excitement, the patient experiences alternations of cold. With the febrile exacerbation, is experienced an increase in the aching of the head and limbs; a most painful sense of fatigue, and an indisposition to the slightest exertion. The pulse is now quick, frequent, sometimes dicrotic, and ranging from 85 to 112. Heat of surface pungent. The exacerbation is very constantly in the evening, and is accompanied with delirium, frequently violent. The hot stage lasts from twelve to forty-eight hours, and in but few cases is followed by a sweating stage; more usually a sensation of coldness and extreme muscular and mental debility, follows. As the paroxysm subsides, the patient passes a quantity of deep-red urine, laden with an abundant lateritious sediment. The fever is either quotidian or tertian in type, more usually the former, and may be either intermittent or remittent. The mild cases, if not interfered with by treatment, naturally recur to the healthy condition; the paroxysms becoming less and less violent, and finally ceasing, leaving the patient much debilitated. In the more serious cases, the remittent, the tendency is to assume the continued form and a protracted duration. The cases of mountain fever, assuming the continued form, which it has happened me to see, were in teamsters, in the contractor's supply trains, who were taken upon the road, and after several days or weeks of travel, left at this post. These are severe cases. If quinine had been administered to these during the periods of intermission or remission, I doubt not the disease had been promptly arrested, but the time has passed for the exhibition of this remedy, when the type of the fever becomes continued. The continued form of the fever is not properly a typhoid state. Low muttering delirium, subsultus tendinum, and an accumulation of sordes, with dry, brown tongue, are not present. The tongue throughout presents pretty nearly the character already described, it may be becoming somewhat drier towards the close.

The most painful symptoms in this disease, are the aching in the limbs, and the sense of weariness. These pains are so severe and characteristic, that the fever is likened to the *dengue*, by officers who have suffered from attacks of both. The sense of fatigue, is one of the first symptoms, and the most persistent. Convalescence is ordinarily slow and protracted, and it is not always easy to determine when it begins, especially in the continued form of the disease. In many instances, the first evidence of commencing convalescence, was a violent pain in the soles of the feet, increased at night. The fever, after having apparently ceased, has a tendency to recur, at irregular intervals, and usually in the milder cases, treated upon the expectant plan. I am inclined to think, that the relapse in these cases, happened because the antidote to the poison had not been administered. In all cases, however, the intermissions, remissions, and exacerbations, are very irregular, both as regards their duration and periods of return. Having suffered an attack *in propria persona*, I was enabled to verify this observation in the most satisfactory manner.

With regard to the necessity for the use of quinine in mountain fever, the most discrepant and contradictory opinions are held. These differences, it seems to me, may be explained by a reference to the two forms in which the fever usually manifests itself; the mild and the grave. Whilst the former variety tends to health without remedial interference, the latter, if uncontrolled, passes into the continued form. The cases of the first variety, however, are promptly arrested

by quinine, if administered; but a few days of the diet and regimen of the hospital suffices to cure. In the grave form, quinine is exhibited with success, only, when the fever is obviously remittent.

The two classes of cases, therefore—one in which quinine seems useless, because unnecessary, and the other, in which if not administered at the proper time it fails of effect—have, in my opinion, given rise to the discrepant opinions on this subject. That this reason is not more fanciful than real, three cases lying side by side in the same ward, two of the mild variety, and a third one, grave, presented an opportunity for determining. The former were remittents of the quotidian type, the latter, of the tertian. To neither, did I for the first three days administer any medicine. In the mild cases, the fever gradually exhausted itself and ceased; in the grave case, the remissions became less and less marked, until I was forced to administer sulph. quinia, gr. xv, lest the fever should get beyond control. The power of the quinine was characteristically exemplified in sedating the heart and arteries, and in producing a distinct remission on the following morning; an additional ten grains sufficed to cut short the fever entirely.

Mountain fever, is the only disease which presents features peculiar to this region. Whether it originates from any other cause than that which gives rise to the ordinary periodical fever, is far from being determined. In previous reports, I have given reasons for supposing that the malaria may be developed in this region, under favorable conditions as to moisture and temperature. If *malaria* can exist in Iceland, as recent investigations tend to establish, why not in the latitude and at the elevation of Fort Bridger? In the present state of our knowledge upon the subject of this aerial poison, it must be confessed, however, that the cause of this fever must be sought elsewhere than in the theory of a local poison. The occurrence of this fever may, quite plausibly, be accounted for upon the theory of latent malaria becoming sensible, in a rarified atmosphere, and at a considerable elevation.

Besides mountain fever, no diseases of severe character prevail in this Territory. The climate is unrivaled for healthfulness, and consequently the duties of the medical officers are light. A pure and bracing atmosphere, conjoined with a nutritious diet without luxuries, and a freedom from grave diseases, constitute the pleasurable portion of life in Utah. The mental condition is so closely dependent upon the bodily, as to health and disease, that I doubt not, the invariable cheerfulness with which hardships and exposure have been borne by the troops serving in this department, was due to the high health felt by almost all. When the "animal sense" of existence becomes a delight, the source of true happiness is not remote.

SANITARY REPORT—SIXTH INFANTRY *EN ROUTE* TO UTAH.

Assistant Surgeon John J. Milhau: September, 1858.

On the 1st of July, 1858, the first column Utah forces, consisting of company A Engineers, and six companies of the Sixth Infantry, in all, nineteen officers, and 348 enlisted men, under command of Lieutenant Colonel Andrews, Sixth Infantry, encamped at Elk or Butte creek, near the base of Medicine Bow butte; latitude 41° 41′ N., longitude 106° 36′ W.; elevation above level of the sea, about 7,000 feet.

The camp was pitched in a grassy valley, watered by a number of small steams coming directly from the melting snows on the mountains: the water was icy cold, clear, and perfectly free from the alkaline taste, generally found in the waters of that region. The neighboring mountain was clothed with a dense forest of spruce, fir, and pine, and its upper third covered with snow.

As this locality presented every advantage for a good and healthy camp, the command made a halt for five days, for the purpose of recruiting and refitting; on the 3d of July, a working party of ninety men, was sent on ahead to make the road on Stansbury's trail, through Bridger Pass.

On the fourth day of the halt, a severe form of fever very unexpectedly made its appearance

in the command, which in four days placed thirty-five men on the sick report, and news was sent back from the working party that twenty of the ninety men were unfit for duty on account of this disease.

The camp was broken up, and the command continued its line of march, making easy marches and frequent halts, but the disease continued for nearly three weeks, and until the column reached Green river. Five officers and 105 enlisted men, were treated for the disease, besides a large number of teamsters and herders, of whom no record was kept.

Description of the disease—name.—This disease is called mountain fever by the trappers and mountain men, who state that they are frequently affected with it in the spring, when following up the rivers to their sources in the mountains, for the purpose of trapping beaver: this is in May and June, when the ice in the streams breaks up, and the snow commences melting. These trappers also state, that the Indians are subject to the same disease when roaming through the mountains in the spring.

Symptoms.—The disease commences with a slight chill of one or two hours duration; the chill is sometimes so slight as to escape the observation of the patient. The cold stage is suddenly succeeded by the following symptoms, which come on simultaneously, viz: high fever; hot skin; flushed countenance; bloodshot eyes; excruciating pain in the head, especially over the eyebrows; violent pains in the back, particularly in the lower part of the loins; severe pains and sometimes cramp in the legs; pulse quick and full; tongue covered with patches of thick, white, cheesy fur; papillæ red, inflamed, and prominent: nausea is a very prominent symptom, but attempts to vomit generally ineffectual; the bowels nearly always constipated. The pain in the head is described by patients as being intolerable, and feeling very much as if the head were being mashed between rollers. The headache, fever, and other symptoms last about twenty-fours, but gradually diminishing in intensity during that time, and at the end of thirty-six hours all the symptoms disappear, leaving the patient very much prostrated, but free from pain. On the fourth day after the first accession of the fever, the patient feels very well, and desires to be restored to duty; but on the fifth day, in a large proportion of cases, the symptoms return, but with much less severity than at first, and only last from twelve to eighteen hours; after this relapse the patient convalesces slowly, and there is no further return of the fever. One of the most remarkable features of this disease, is the uniformity of the train of symptoms in the different cases.

Cause.—When the disease showed itself the command was encamped in a locality which seemed free from all local cause of disease. It attacked both officers and men with equal violence; those who had marched and those who had ridden; those who had been on guard and on fatigue, and those whose duty was light; those who had worked in the water, making roads and crossing trains, and those who had remained in camp, comparatively idle; all appeared equally subject to the influence of the disease. The first case that occurred was that of a sergeant, who had been hunting in the mountain, and becoming much overheated and thirsty, drank freely of the melting snow; the next two cases occurred in men who had been burning charcoal in the mountain. I naturally concluded that the cause was to be found in the mountain, but when the disease spread generally throughout the command, without reference to the nature of their exposure, I was at a loss to find a satisfactory cause. The water used by the troops came directly from the melting snow on the mountains. The temperature in camp ranged from 32° at night, to nearly 90° in the day; and I think that the combined influence of hot days, cold nights, and the use of snow-water, was one element in the cause producing the disease. The trappers say that this fever is a "kind of seasoning" to the mountain air, and I am disposed to look upon it as a fever of acclimation.

Treatment.—As the tendency of the disease is to health, there is not much to be done in the way of treatment, except to follow the indications, and to relieve the nausea and constipation. With this view, I prescribed first, an emetic of tartrate of antimony and ipecacuanha, and by the

administration of warm water free emesis was produced, with ejection of bilious matter. The vomiting relaxed the skin, produced perspiration, and afforded some relief to the head. As soon as the stomach could bear it, I prescribed blue mass and colocynth each grs. x, or blue mass and croton oil, followed the next day by salts or seidlitz. Vomiting and purging did more to relieve the symptoms and to prevent the relapse on the fifth day, than any other form of treatment.

In several cases I prescribed quinine during the remission produced by the emetic, but its action was not at all favorable, and I abandoned its use. I tried in several cases to prevent the relapse by administering quinine until the head gave evidence that the system was under its influence, but it did not have the desired effect; the relapse came on, and lasted longer than usual; in fact, I consider that quinine is injurious in this disease. Under the emetic and purgative treatment, patients generally went to duty in seven or eight days after the accession of the fever.

All the cases treated recovered with the exception of one, which resulted in death. In this case the fever ran very high, and head symptoms were accompanied with delirium; one week after the accession of the fever paralysis came on, and two days afterwards the patient died of apoplexy.

SANITARY REPORT—FORT BRIDGER.

Assistant Surgeon Roberts Bartholow: March, 1859.

History.—For many years past Fort Bridger has enjoyed some celebrity as a trading station, occupied by James Bridger, a famous mountaineer. The fort originally consisted of an irregular collection of log houses, surrounded by a stockade, arranged in part for defense against the Indians, in part for the kind of trade here carried on. When the Mormons occupied the valley of Salt Lake, and grew into a formidable community, the fort came into their possession, and was further strengthened by the erection of a quadrangular wall. Upon the arrival of the army, in the fall of 1857, nothing remained of Fort Bridger but this wall, all the wooden structures having been burned by the Mormons when they could no longer maintain possession.

The erection of the necessary quarters for a garrison of five companies commenced immediately after the advance of the army in June, 1858; but, owing to the scarcity of the indispensable materials, the buildings, though in a state of considerable forwardness, are, as yet, uncompleted. The hospital was so far advanced toward completion as to be considered habitable in December last, and the company quarters a few weeks later. In this half-finished state, the officers' quarters were occupied in January. The quarters are built in a substantial manner of logs. The work of completing them is still going on as vigorously as the coldness of the weather will permit: they make haste slowly.

Medical Topography, &c.—Fort Bridger lies in latitude 41° 18′ 12″ N., and longitude 110° 32′ 38″ W., and in the valley of Black's fork, a mountain stream tributary to Green river. The valley of Black's fork has an average width of about one thousand yards; wider at this point than elsewhere. The transition from the valley to the table-lands is much more gradual in the vicinity of the fort than at any other point, and consequently this part of the valley is more exposed to the prevalent high winds. The bluffs which bound the valley consist of sand, conglomerate, and shale, and, in some situations, magnesian limestone, (dolomite.) The soil of the valley is a sandy alluvium, light, porous, and superficial in depth, and incapable of sustaining a luxuriant vegetation. Under the soil lies a stratum of sand and rubble stone of great thickness, through which the water constantly percolates. Numerous ravines and mounds of exposed rubble stone attest that the valley is overflowed when the melting snows swell the stream.

The herbage of the valley is sufficiently luxuriant to contrast strongly with the barren table-lands covered with the wild sage, (*Artemisia tridentata.*) The cottonwood (*Populus angustifolia*)

and an herbaceous willow are the only trees which grow in the immediate vicinity of the post. On the hills, five miles distant, grow groves of stunted cedar trees, from which the fort is supplied with fuel. The buildings recently erected are arranged in a quadrangle, the wall of old Fort Bridger forming one side. Through the parade ground, and in front of the line of officers' quarters, runs one of the numerous branches into which Black's fork is divided at this point.

Climatology.—The mean height of the barometer for the five months during which observations have been taken at this post, is 23.48 inches. By a recent calculation, I determine the elevation to be 6,646 feet. Accordingly, at an elevation so great as this, and at the forty-first parallel of north latitude, the climate of Fort Bridger properly belongs to the "upper or cold regions" of meteorological writers. The mean height of the thermometer for eight months, commencing in July last, is 39.22°. The proportion of summer months in this estimate is too large for the mean of the year, which would be lower. The lowest degree of the thermometer since the occupation of this post was —22° Fahrenheit. Extreme cold is less appreciable to the senses, owing to the dryness of the atmosphere; and a less amount of clothing is necessary than will suffice in latitudes warmer but moist. The most annoying, as the most prominent, feature of this climate is the almost constant prevalence of high winds. This prevailing wind is from the southwest. Few days are without it; and Fort Bridger, unprotected by bluffs, is fully exposed. Snow-storms are frequent; in fact, no month in the year is exempt from such visitations of greater or less intensity. A few miles up the stream, on the summit of the Uintah, the domain of "perpetual snow" is reached; there great fields of snow lie all summer.

The barometer, as a weather indicator, may be confidently relied upon at this post. A considerable fall of the mercury constantly portends high winds and a snow-storm, whilst a rise, no matter how threatening the appearance of the clouds, as constantly indicates fair weather and calm.

Hygiene.—The foregoing observations, with great propriety, introduce the subject of hygiene. I include, under this designation, air, exercise, food, clothing, habits, and the duties and employments of the troops in so far as these influence their sanitary condition.

From the preceding account of the situation and climate of Fort Bridger, it will be at once perceived that due ventilation has been secured by the location and plan of that post. The company quarters now occupied are much too small for the full standard of strength; consequently additional buildings are in process of construction. By crowding the men into too confined a space, sufficient regard has not been paid to cleanliness. This is more especially the case with the dragoons, who, by reason of their employments, are more exposed to filth, yet are, personally, less regardful of appearances.

The hospital, built in all respects like the other quarters, is sufficiently commodious, but sadly defective in arrangement. I desire to record that I am in no respect responsible for the plan of this building. I was not consulted by the architect, and, of course, abstained from making suggestions which would have met with no attention.

Since the arrival of the present garrison at this post, a large portion of it has been engaged in the labor of building, and of the necessary police. These employments have not influenced the health of the command, except by the occurrence of such injuries as happen from the use of cutting tools by unskillful hands.

The water supplied by the branch of Black's fork, which runs through the parade, is clear and free from visible impurities. If this were the only beverage used by the men in this command, my professional duties were the lighter. A vile concoction, known as whisky, has been from time to time surreptitiously sold to the troops, notwithstanding prohibitory orders from the commanding officer. Manufactured by traders from alcohol, tobacco, and other narcotics, this liquor has, in one instance, produced an immediately fatal effect, and more or less alarming symptoms in various instances. The only death during the present quarter was from this

cause: a private of company F, Seventh Infantry, having swallowed a considerable quantity of this liquor, died in a few minutes, and before relief could be obtained.

Diseases.—I arrange these into two classes:

I. Ubiquitous diseases, which occur under all circumstances of climate and local conditions, including fevers, inflammations, and specific diseases.

II. The diseases belonging more especially to this region, including scorbutus, neuralgia, rheumatism, and a certain febrile state, known as "mountain fever." Certain surgical diseases and injuries may be considered under this head.

It has happened me not to meet at Fort Bridger many of the diseases included in the first class. During the past fall I had under treatment in the hospital several cases of common continued fever, (typhoid.) Its behavior at this elevated position was, in many respects, anomalous, and deserving of consideration. This continued fever constantly assumed the periodical form, and was not easily distinguished from the "mountain fever," a periodical affection, which as constantly determined toward the continued type. In two instances only was a hesitating diagnosis confirmed by the discovery of the characteristic "rose spots." In all were absent, to a great degree, those external symptoms, pathognomonic of typhoid fever: coma, subsultus tendinum, low muttering delirium, floccitatio. The nature of the fever was recognized by its duration, by the impossibility of arresting it by the heroic use of quinine, by the mental disturbance and stupor, by the epistaxis and cophosis, by the gurgling on pressure over the ileo-caecal valve, and the peculiar, greenish-colored stools. The only instance of death in the hospital from this cause disclosed a lesion so peculiar as to justify the insertion of the notes of a *post mortem* examination.

Private Hilt, of company "I," Second Dragoons, died on the 10th of November: autopsy, twelve hours after death.

Body much emaciated; numerous bed-sores over the sacrum, trochanters, scapula, and left ribs. Left nipple and mammary gland inflamed, and containing pus.

Thorax.—Cavity of pleura contained about six ounces of serum. Lung healthy, except post-mortem congestion in dependent portions; sack of pericardium contained one ounce serum; heart normal in size and healthy, and upon section about one ounce of dark fluid blood, flowed out.

Abdomen.—Liver healthy, weighing four pounds and fifteen ounces; spleen friable and enlarged, weighing fourteen and a half ounces; stomach healthy, of normal size, and containing a small amount of ingesta; no fat in the omentum majus, very transparent; upper portion of small intestine healthy, and distended by some gaseous accumulation; some dark points of congestion near ileo-caecal valve; Peyer's patches thickened, indurated, and in some places ulcerated, in others healing; large intestine, healthy, except a general diminution of caliber; in some places dilated into pouches containing scybala; left kidney, friable, enlarged, and upon pressure drops of pus exude from the cut surface; left supra-renal capsule, disorganized, pulpy, diffluent; right kidney in great part disorganized, and occupied by a large abscess, containing about sixteen ounces of thick, creamy pus; bladder, healthy; urine *clear, amber-colored, normal.*

Brain.—Frontal sinuses very healthy; dura mater healthy; small quantity of fluid (serum) in lateral ventricles; sub-arachnoid space filled with serum; substance of cerebrum, healthy; left lobe of cerebellum softened and pulpy; medulla oblongata, healthy.

There had been no symptom in this case to indicate so serious a lesion of the kidney. Beside the lateritious sediment common in typhoid fever, the urine afforded no evidence of disease. A deposit similar in character and amount, was observed in the other cases which proceeded to a favorable termination.

This command has been singularly free from the inflammations; common inflammations as opposed to specific. The tendency in high latitudes and considerable elevations, is said to be, to thoracic inflammations: manifestly an error as regards this region. No cases of idiopathic pneumonia or pleuritis, have fallen under my observation, and but few cases of catarrh. The

most interesting fact, however, with regard to the influence of this climate upon the thoracic affections, is the amelioration and cure of the pulmonary tubercular disease. Not a single case of phthisis has occured at this post, and those who came hither, laboring under the symptoms more or less advanced, notably improved. How this change is accomplished, other than by the increased expansion of the lungs in consequence of diminished barometric pressure, by the determination to the surface, and by the purity of the respired atmosphere, does not appear. The same facts are true and apposite with respect to other inflammations, except the rheumatic.

The exanthemata prevail occasionally as epidemics, modified, as typhoid fever, by the conditions consequent upon elevation. Large numbers of Indians were formerly carried off by variola. Syphilitic affections rapidly improve; at least, the secondary symptoms, which, only, I have observed.

Again, certain diseases manifest for this climate an aptitude, whose invariability amounts to a special affinity. The neuralgic and rheumatic affections only, belong properly to this class. Whilst scorbutus is an ubiquitous disease, it may be said to have a special affinity for this region. Ten cases are, at present, under treatment in the hospital.

Most usually, the first symptom of an attack of scorbutus, is a pain in the popliteal space or calf, with lameness of the muscles. This pain persists for some days, before the appearance of the discoloration and swelling. The discoloration is peculiar; like the discoloration of a bruise, yet in reverse order, the yellowness preceding instead of following the dark brown, dark-blue, or black hues. A general anaemic condition, with sponginess of the gums, fetor of breath, and hemorrhages follow the pain and discoloration.

At the head of the causes of this disease, I place drunkenness. Filth, despondency, ennui, and an unvaried diet from which vegetables are absent, are next in frequency the producing causes.

The treatment I have finally adopted, consists of certain hygienic means; cleanliness, regularity of habits, such mental amusements as may relieve the tedium of confinement, and the use of an exclusive vegetable diet. In but few cases are medicaments administered. The first cases of scorbutus it happened me to treat, I put in practice the various methods of cure by medicinal agents, but with a less satisfactory result than the plan here adverted to.

Having, in former reports, discussed the question of "mountain fever," it is unnecessary for me to add anything further, except to declare my unaltered conviction, that this febrile disease, is a modified form of periodical or malarial fever.

The surgical diseases included under the class of diseases belonging to this region, are, the affections resulting from the application of cold.

Phenomena of frost bite.—Exposed to cold, a greater or less period according to intensity, the parts, usually the feet or hands, lose sensibility; become, in common parlance, benumbed. If examined at this stage, the integument is found to be white, bloodless, shrunken, and insensible to irritants; but yet capable, by very gradually applied warmth, of being restored to health. The return of circulation under the proper manipulation, is announced by severe "stinging pains" in the bitten part, and a generally diffused blush or redness. If, however, whilst frozen, the hands and feet are thrust before the fire, as is usually the case with teamsters and soldiers, the reaction induced is excessive, and passes sufficiently beyond the healthy condition to constitute inflammation. Under these circumstances, the parts become covered with large vesicles, filled with brownish-yellow serum, and turn bluish-black. Sensibility for a time is excessive (hyperaesthesia); severe nocturnal pains harass the patient, and prevent sleep; but these soon subside, and deep incisions may then be made, with but little appreciation on the part of the patient. The parts, then gradually turn black, and shrink, and the line of demarkation is established. Where the *vis vitae* is accomplishing the separation of the dead from the living parts a disagreeable odor is exhaled, but the mortified parts are dry and free from odor.

TREATMENT.—When a frozen part is seen before reaction has commenced, it should be rubbed diligently with snow, and if this is not at hand, should be immersed in cold water, in a room without fire, until the pains and redness indicate a restoration of the circulation. If these means have not been resorted to, and the part is covered with vesicles, I evacuate the fluid and direct the parts to be covered with lint, moistened with the following: Ol. terebinthinae, alcoholis, tinct. camphorae, āā. oz. i. Depletion by blood-letting or purging, is necessary. When the sloughs form, use poultices of flax-seed and elm to favor separation. The most important question with regard to the treatment, is the question of amputation. I have acted upon this plan: wait until the line of demarkation is established; if the separation proceed favorably, no interference is necessary, except the section of the bones and tendons, or disarticulation, if the line of separation is in the vicinity of joints. After the sloughs are entirely detached, use water-dressings, until the healing process is completed. Under this treatment, the formation of pus is prevented, and granulations are never exuberant.

SANITARY REPORT—FIFTH INFANTRY, UTAH.

Assistant Surgeon Charles Brewer: December, 1859.

The fever in the monthly reports of sick and wounded of the fifth regiment of infantry for the months of July, August, September, October, and November, recognized as "remittent and intermittent fevers," but by the residents of the country called the "mountain fever," I consider to differ in no very material characteristics from the ordinary malarious fever as it occurs in varied force and type in the malarious districts of our southern and eastern country.

Of the various symptoms and phenomena of this disease which have here lately fallen under my observation, some may, however, be possibly considered as peculiar to it only when occurring in a mountainous country, or region of almost perpetual snows.

What are the special influences which, under such circumstances, modify its already established character remains to be investigated.

The paroxysm is ushered in by a sense of chilliness; but more frequently a series of chilly sensations, followed by the accession of fever, accompanied by aching in the head, often severe and obstinate, pains in the back and limbs, and occasionally by delirium. These paroxysms of chill and heat occur at all times of the day, the remissions appearing equally in the morning or evening.

Almost perfect intermissions are of occasional occurrence, in a few days giving place to remissions; these remissions, as the disease progresses, becoming less and less distinct, the fever then assuming somewhat the character of continued fever.

Throughout the course of the malady, previous to the remissions, copious perspirations occur; these occasionally being more moderate, but more frequently requiring restraining, as, after a short period, so far from affording the patient relief, they debilitate and exhaust.

In the early stages of the disease, and during its continuance, the tongue appears smooth, flabby, and moist, and laterally indented; these indentations becoming deeper and more conspicuous. In the latter stages of the more violent attacks, it appears covered with a brown crust, fissured and bleeding. The skin, more generally dry, and of not very exalted temperature, is often moist and unpleasantly clammy throughout the duration of the complaint. In the milder cases, convalescence seemed to be indicated by the surface of the tongue beginning to roughen, exposing the filiform papillae, and the flow of saliva to be less abundant.

The pulse at first accelerated, then frequent but compressible, was occasionally full, and most generally lacking force. Later, it became frequent, small, and feeble, resembling the pulse of irritation; and still later, and during convalescence, that of debility.

At the commencement of the epidemic in this regiment, in the month of July, the effect of the sulphate of quinine, administered in large doses, seemed marked and favorable. After its

prevalence for a few weeks, the patients did not seem to derive that amount of benefit usually accruing from the employment of quinine in ordinary remittent fever after the remissions become less distinct.

The treatment employed up to the month of October, consisted of a prompt emetic in the early stage, followed by a moderate mercurial and local depletion, and counter-irritation when seemingly required; the sulphate of quinine in the early intermissions and marked remissions; nitrous diaphoretics during the febrile paroxysms, accompanied with a dry skin; mineral acids for excessive sweating, and alcoholic stimulants in the obscure remissions of a later period, or when there existed much depression of the vital powers.

During the month of October the number of cases occurring in the regiment somewhat diminished. Of sixteen reported, five were recruits, who were, for the first time, attacked with the disease in Camp Floyd; four had previously labored under it; two were first attacked on the road from Fort Leavenworth, Kansas Territory, to Camp Floyd, Utah Territory; and one on the banks of Newfoundland. Of the four who were old soldiers, two had experienced several attacks previously; one had had the ague at Ringgold Barracks, and another in Florida. With the exception of two, they were all men of apparently good constitutions.

During the month of September the continuance of the disease varied from three to thirty days, the average duration of the twenty-four cases being nine days.

During the month of October its continuance varied from three to twenty-six days, and the average duration of the sixteen cases ten days.

In the majority of these cases the periods of the remissions were exceedingly irregular. In very few could the patient conclude when to expect the chilly paroxysms.

As during the previous month, the stages of cold and sweating occurred, in many cases, several times during the twenty-four hours, the duration of the chill varying from ten or fifteen minutes to one hour.

In those cases having a tendency and similitude to continued fever, where the tongue at first moist and furred at the base, and red and dry at the tip, became afterwards dry over its whole surface, and thickly coated with a brown crust, the administration of the oil of turpentine in infusion of serpentaria was of decided benefit, the tongue cleaning and the frequency of the pulse diminishing under its use.

On manipulation or percussion no decided enlargement of the spleen or liver could be detected. Local depletion and counter-irritation were, however, made in the neighborhood of these organs, but with no very striking benefit. In the majority of the cases the skin was sallow, and occasionally the cornea icteric.

The cases occurring during my absence in the early part of the month of November, eleven in number, and in charge of Assistant Surgeon Joseph C. Baily, and called by him cases of quotidian, were evidently of a milder character, the disease apparently yielding on the approach of frosty weather. Snow falling heavily upon the neighboring mountains on the 21st of September; the first white frost occurred on the 25th.

The average duration of the eleven cases was eight days. Most of these cases terminated in catarrh. The treatment pursued was the administration of mild mercurials and the sulphate of quinine in free doses. During the latter part of the month no new cases have occurred, although other diseases have assumed an intermittent type.

Whether this disease be the same with that met with by my friend, Assistant Surgeon J. J. Milhau, during the summer of 1858, whilst with the Sixth Regiment of Infantry, passing through the Black Hills, I am unable to decide. Cases of obscure intermittent and remittent did at that same time exist among the recruits for the army of Utah under my charge, which were of a some. what novel character, and were noticed in my sanitary report forwarded on the route to this post.

Having in view the known altitude of our position, the mountainous character of the country, the general condition of the atmosphere as regards heat and moisture, the well-known barren-

ness of the soil, and its scanty supply of vegetable growth, the existence of malarious disease may to many appear singular. It then becomes us to consider carefully whether such cases as have occurred at this point may not be attributable to some local cause.

From information procured from the more intelligent of the inhabitants of the villages bordering Lake Utah, and from those who with some medical education, have undertaken the treatment of diseases, I am induced to believe that the special malady under consideration, is not peculiar to our camp, but exists to some considerable extent throughout the Territory.

Lake Utah lying in a great basin, bounded on the east by a lofty chain of the Wahsatch, and separated from Camp Floyd on the west by an isolated group of mountain spurs, has its outlet towards the north, in the Jordan, and receives numerous tributaries upon the south and east. Among these the Tympanogus river upon the east, and Salt creek upon the south, may be considered proper types of the two distinct characters of streams here found. The former, a mountain stream, rising in the gorges to the east of the lake, descends with a rapid current on its bed of shifting boulders, and with a gradually diminishing descent and current, passing over a sandy and gravelly soil, enters Lake Utah. Its waters are cold, clear, and with no trace of alkaline taste, and are frequented by abundance of fine trout. Salt creek, a valley stream, rising in the gorges to the west of the city of Nephi, enters and courses through nearly one half of the valley of Juab, in a direction northward; its current is here sluggish, its bottom muddy, and containing abundance of vegetable growth; its waters are somewhat opaque, brackish, and containing few and minute fish; the soil in its vicinity is dark and loamy, and it is bordered by extensive marshy grounds, which, with the aid of heat, seem sufficient for the generation of malaria; and springs which, with an outlet of a few yards, again sink and disappear. Passing through a gap in the irregular chain of mountain spurs separating Juab from Goshen valley, it appears in the latter, and a few hundred yards below the old settlement of Goshen, its current having become gradually more sluggish, sinks and disappears. Between this point and the lake the country is interspersed with numerous alkaline ponds, surrounded by marine vegetable growth, some of these being superficial, and others having apparently both an inlet and outlet. The waters of the lake are brackish, and contain wild celery and other grasses, upon which the wild fowl feed; the lake itself being bordered with a salt marsh varying from twenty to two hundred yards in width, and clothed in a luxurious growth of cane from six to ten feet in height, and also the giant rush. This bog in only a few places allows the approach of herds to the borders of the lake; the soil being black, and composed chiefly of the remains of previous crops of cane. The bottom of the lake is composed of a mixture of light blue clay and lime, the latter the debris of the myriads of small convoluted marine shells, which at one time in greater numbers, but even now in multitudes infest the marshes. Rush valley, upon the west, contains a small alkaline lake a few feet in depth, and a stream much resembling Salt creek near its mouth.

Having glanced cursorily at the topography of the neighborhood, so far as it was likely to bear upon the question under consideration, we now notice briefly that of our immediate vicinity. With a latitude of 40° 13′ 57″ N., and longitude of 112° 16′ W., at an altitude of 4,725 feet above the ocean, Camp Floyd is situated near the center of Cedar valley, and somewhat nearer to its western slope, the land gently declining upon its eastern side to a bottom. The stream (a valley stream) supplying it with water rises upon the northwest corner of the camp, and skirting it upon the north side diffuses itself through the low lands, forms, at the distance of a mile below, numerous sloughs and marshes of no very considerable extent, but still possibly sufficient for the generation of malaria. This stream, upon whose banks occasional patches of alkali are seen in a state of effloresence, has been obstructed in its natural course by a mill-dam, occupying the interval between the Fifth and Seventh Regiments, and having become of course to some extent stagnant the quantity of vegetable matter (grass of various kinds) contained in it seems to have increased. Bordering the stream upon the out-

skirts of Fairfield, and at the eastern extremity of the camp, are numerous excavations, left during the manufacture of adobes, many of these being filled with stagnant water. The soil of the post is a compact silico-aluminous one, with probably some considerable vegetable matter from the remains of the abundant growth in successive years of artemisia and greasewood and the so-called rabbit-bush. This becomes more abundant as we approach the low lands, where the soil is darker and more porous. The water procured from the numerous wells with which camp is supplied, is to some slight extent, but perceptibly, brackish. Mountaineers, to whose long observation and experience in the wilds some attention is due, attribute the origin of the so-called "mountain fever," to the melting of snows and the drinking of snow water. Snow is visible upon the chain of mountains completely encircling Cedar valley until the month of August, and again falls during the month of September. During the former, however, as well as the month of July, it has almost completely disappeared from the eastern face of the mountains upon the west, which are exposed to the sun for the greater portion of the day; the greater bulk remaining upon the western slope of the ranges, which all lie mostly in a direction north and south. The water Camp Floyd receives from these mountains, must descend from their eastern face. The first perceptible amount of snow upon them in the autumn, fell, in the year 1859, on the 21st of September.

The atmosphere of the valleys of this climate is generally considered to contain but a small amount of moisture. Its highly electrified condition, manifested during the day by the constant ascent of land-spouts, and at night by the displays of aurora borealis, would seem to tend to strengthen this conclusion. During the spring and summer of the present year, the fall of rain has been unusually large. The following data from the meteorological register of the year are thought of sufficient interest to admit of introduction here, as indicating the amount of humidity of the atmosphere, and the temperature during the prevalence of the fever.

Total amount of rain fallen during the months April, May, and June: Inches 1.91.

AVERAGE DAILY MEAN PER MONTH OF THE HYGROMETER, THERMOMETER, &c.

Months.	Average daily mean per month of the Hygrometer.	Amount of rain.	Average daily mean per month of the thermometer.
July	69.20	2.67	76.47
August	65.56	0.18	72.14
September	54.18	1.72	58.59
October	16.31	Inappreciable.	50.06
November	34.79	Rain and snow 3.21	36.27

Exposure to the unequal temperature of the days and nights, a prominent feature in the climate of the country, I believe to be one of the chief predisposing causes to this disease. To sustain this fact with regard to temperature it is to be regretted that the statistical records of a differential thermometer are not at hand, and that we must mostly depend on personal experience. Situated low down in a broad valley, at midday receiving the direct rays of the sun, the temperature of the camp is warm and pleasant. When the sun disappears behind the mountains, of altitude some thousands of feet above the camp, the atmosphere becomes heavy and chill, and masses of cold air, resembling fog, containing a large column of dust, settle over the marshes, and move over the camp in layers whose limits are perfectly defined. The disease I find to occur most frequently among those who have been most exposed upon night duties, and particularly those employed at the base of the mountain in obtaining a winter's supply of fuel for the post, and who are detailed for this duty for the period of one month: some of these cases were of severity.

The police regulations of camp, since its establishment, have been most excellent: the food of good quality, and the habits of the men cleanly, and facilities offered for preserving them in a good hygienic condition.

Of the eighty-six cases occurring during the five months only one proved fatal. The conclusions, then, which are to be justly deduced from the above observations, I believe to be the following:

1st. That the so-called "mountain fever" of this country is a form of malarial fever, its well established character being here modified by causes which are not yet sufficiently obvious.

2d. That there do exist here sufficient local causes for its production, but that it is not a malady peculiar to this position, but one extending through the Territory.

3d. That in addition to the predisposition engendered by previous attacks of intermittents, impaired constitutions, &c., susceptibility to it is much increased by exposure to the unequal temperature of the days and nights.

4th. That the proximity to or use of snow water has no perceptible influence in its origin; the disease occurring at points where little or no snow water is received, and not occurring at the period when the melting snows most abundantly descend from the mountains.

DISEASES.

TABLE EXHIBITING THE RATIO OF SICKNESS AND MORTALITY.

Quarters.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Died.
First quarter	4,833	1,837	7	380	1.5
Second quarter	4,982	2,294	7	460	1.4
Third quarter	5,963	3,255	13	546	2.2
Fourth quarter	7,590	3,395	21	447	2.7
Annual ratio	5,842	10,781	48	1,845	8.2

It is shown by this table, that the annual proportion of cases of sickness, to the mean strength of the troops in Utah, is 1.84 to 1; and the corresponding ratio of deaths 1 in 121.79, or 0.82 per cent. The proportion of deaths to the number of cases treated, is 1 to 225.52, or 0.40 per cent.

FEVERS.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	4,833		4,982		5,963		7,590		5,842				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Febris congestiva	0	0	2	0	2	0	0	1	4	1	1 in	4	0.6
Febris continua communis	4	0	8	0	7	0	21	1	40	1	1 in	40	6.8
Febris intermittens quotidiana	19	0	152	0	106	0	81	0	358	0	0 in	358	61.2
Febris intermittens tertiana	27	0	187	0	76	0	57	0	347	0	0 in	347	59.2
Febris intermittens quartana	0	0	3	0	1	0	0	0	4	0	0 in	4	0.6
Febris remittens	5	0	189	0	152	1	94	3	440	4	1 in	110	75.3
Febris typhus et typhoides	4	2	1	0	0	0	8	6	13	8	1 in	1.6	2.2
Febris typhus icterodes	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Total	59	2	542	0	344	1	261	11	1,206	14	1 in	86	206

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	4,833		4,982		5,963		7,590		5,842				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	0	0	0	0	0	0	0	0	0	0	0 in	0	.....
Diarrhœa	219	0	277	1	838	0	530	1	1,864	2	1 in	932	319
Dysenteria acuta	29	0	35	0	112	0	89	0	265	0	0 in	265	45
Dysenteria chronica	1	1	1	0	2	1	0	0	7	2	1 in	3.5	1.2
Enteritis	1	0	1	1	0	0	2	1	1	2	1 in	2	0.8
Hepatitis acuta	0	0	0	0	1	0	0	1	1	1	1 in	1	0.2
Hepatitis chronica	0	0	0	0	0	0	0	0	0	0	0 in	0	0
Obstipatio	86	0	131	0	181	0	137	0	535	0	0 in	535	91.5
All other diseases of this class	101	0	101	0	216	0	159	1	577	1	1 in	577	98.7
Total	437	1	549	2	1,350	1	917	4	3,253	8	1 in	406	556

DISEASES OF THE RESPIRATORY SYSTEM.

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	4,833		4,982		5,963		7,590		5,842				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	51	0	19	0	24	0	55	0	149	0	0 in	149	25.5
Catarrhus	421	0	263	0	221	0	583	0	1,488	0	0 in	1,488	254.7
Phthisis pulmonalis	1	0	1	0	1	0	5	1	8	1	1 in	8	1.3
Pleuritis	2	0	7	0	3	0	3	0	15	0	0 in	15	2.5
Pneumonia	15	1	10	2	3	0	13	0	41	3	1 in	14	7
All other diseases of this class	3	0	9	0	2	1	7	1	21	2	1 in	10	3.6
Total	493	1	309	2	254	1	666	2	1,722	6	1 in	287	295
Rheumatismus	150	0	161	0	175	0	202	1	688	1	1 in	688	117

ABSTRACTS

OF THE

PRINCIPAL DISEASES AND DEATHS

OCCURRING AMONG THE TROOPS

IN

UTAH.

ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES.		FIRST QUARTER.							
	Years	1855.		1856.		1857.		Total	
	Mean strength			1,816.		3,017.		4,833.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris continua communis			2		2		4	
	Febris intermittens quotidiana			8		11		19	
	Febris intermittens tertiana			18		9		27	
	Febris intermittens quartana								
	Febris remittens			4		1		5	
	Febris typhus et typhoides					4	2	4	2
	Febris typhus lenta								
Eruptive fevers	Erysipelas					2		2	
	Rubeola								
	Scarlatina								
	Variola								
	Varicelloides								
Diseases of the organs connected with the digestive system.	Cholera Asiatica								
	Diarrhœa			140		79		219	
	Dysenteria acuta			8		21		29	
	Dysenteria chronica			1	1			1	1
	Enteritis			1				1	
	Hepatitis acuta								
	Hepatitis chronica								
	Obstipatio			43		43		86	
	All other diseases			58		43		101	
Diseases of the respiratory system	Bronchitis acuta et chronica			13		38		51	
	Catarrhus			154		267		421	
	Phthisis pulmonalis			1				1	
	Pleuritis			2				2	
	Pneumonia			1		14	1	15	1
	All other diseases					3		3	
Diseases of the brain and nervous system.	Cephalalgia					3		3	
	Delirium tremens								
	Epilepsia			2		3		5	
	Neuralgia			5		13		18	
	All other diseases			1	1	3		4	1
Diseases of the urinary and genital organs.	Gonorrhœa					1		1	
	Structura urethræ			1		1		2	
	Syphilis primitiva								
	Syphilis consecutiva			4		4		8	
	All other diseases			2		14		16	
Diseases of the serous and exhalent vessels	Ascites								
	All other diseases								
Diseases of the fibrous and muscular structures.	Perna			33	1	24		57	1
	Podagra								
	Rheumatismus			57		93		150	
Abscesses and ulcers	Fistula								
	Phlegmone et abscessus			23		45		68	
	Ulcus			11		8		19	
Wounds and injuries	Ambustio			5		9		14	
	Amputatio								
	Contusio			36		73		109	
	Fractura					3		3	
	Luxatio								
	Punctio								
	Subluxatio			13		28		41	
	Vulnus morsum			21		24		45	
	Vulnus lacceratum			8		17		25	
	Vulnus punctum					7		7	
	Vulnus sclopeticum			4		6		10	
Miscellaneous	Debilitas			5		3		8	
	Ebrietas			2		13		15	
	Hæmorrhois			1		7		8	
	Hernia					1		5	
	Morbi cutis			10		10		20	
	Morbi oculi			3		3		6	
	Scorbutus			12		16		28	
	Sterelitas								
	All other diseases			39		69	1	109	1
	Total			761	3	1,076	4	1,837	7

AMONG THE TROOPS IN THE DEPARTMENT OF UTAH.

SECOND QUARTER.

CLASSES OF DISEASES.	Years	1857.		1858.		1859.		Total.	
	Mean strength			2,019.		2,963.		4,982.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva					2		2	
	Febris continua communis					8		8	
	Febris intermittens quotidiana			128		24		152	
	Febris intermittens tertiana			168		19		187	
	Febris intermittens quartana			2		1		3	
	Febris remittens			89		100		189	
	Febris typhus et typhoides					1		1	
Eruptive fevers	Erysipelas					1		1	
	Rubeola								
	Scarlatina								
	Variola								
	Varioloides								
Diseases of the organs connected with the digestive system.	Cholera Asiatica								
	Diarrhœa			209	1	68		277	1
	Dysenteria acuta			24		11		35	
	Dysenteria chronica			4				4	
	Enteritis					1	1	1	1
	Hepatitis acuta								
	Hepatitis chronica								
	Obstipatio			48		83		131	
	All other diseases			43		58		101	
Diseases of the respiratory system.	Bronchitis, acuta et chronica			2		17		19	
	Catarrhus			65		198		263	
	Phthisis pulmonalis					1		1	
	Pleuritis			4		3		7	
	Pneumonia			7	2	3		10	2
	All other diseases			3		6		9	
Diseases of the brain and nervous system.	Cephalalgia			3		10		13	
	Delirium tremens					2		2	
	Epilepsy			3		5		8	
	Neuralgia			6		10		16	
	All other diseases			1		8	1	9	1
Diseases of the urinary and genital organs.	Gonorrhœa					1		1	
	Strictura urethræ								
	Syphilis primitiva					1		1	
	Syphilis consecutiva			6		3		9	
	All other diseases			5		7		12	
Diseases of the serous and exhalent vessels.	Ascites								
	All other diseases								
Diseases of the fibrous and muscular structures.	Pernio			5		1		6	
	Podagra								
	Rheumatismus			80		81		161	
Abscesses and ulcers	Fistula								
	Phlegmon et abscessus			26		55		81	
	Ulcus			7		10		17	
Wounds and injuries	Ambustio			3		8		11	
	Amputatio								
	Contusio			55		37		92	
	Fractura			3		1		4	
	Luxatio			2		6		8	
	Punctio					2		2	
	Sub luxatio			8		34		42	
	Vulnus morsum			14		21		35	
	Vulnus laceratum			10		15		25	
	Vulnus punctum					5		5	
	Vulnus sclopeticum			8		7		15	
Miscellaneous	Debilitas			16		1		17	
	Ebrietas					8		8	
	Hæmorrhois			6		9		15	
	Hernia					3		3	
	Morbi cutis			2		6		8	
	Morbi oculi			10		48		58	
	Scorbutus			23	1	16		39	1
	Suicidium					1	1	1	1
	All other diseases			61		108		169	
	Total			1,139	4	1,155	3	2,294	7

ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING

CLASSES OF DISEASES	Year	1858.		1859.		Total.	
	Mean strength	1,241.		2,542.		963.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva	1		1		2	
	Febris continua communis	5		2		7	
	Febris intermittens quotidiana	30		76		106	
	Febris intermittens tertiana	37		39		76	
	Febris intermittens quartana			1		1	
	Febris remittens	8	1	19		182	1
	Febris typhus et typhoides						
	Erysipelas					7	
	Rubeola						
Eruptive fevers	Scarlatina						
	Variola						
	Varicella						
Diseases of the organs connected with the digestive system.	Cholera Asiatica						
	Diarrhœa	462		194		656	
	Dysenteria acuta	30		18		142	
	Dysenteria chronica			2	1	2	1
	Enteritis						
	Hepatitis acuta					1	
	Hepatitis chronica						
	Obstipatio	56		37		181	
	All other diseases	58		72	1	131	2
Diseases of the respiratory system.	Bronchitis, acuta et chronica	19		2		24	
	Catarrhus	48		25		221	
	Phthisis pulmonalis	1				1	
	Pleuritis	2				3	
	Pneumonia			2		3	
	All other diseases		1			2	1
Diseases of the brain and nervous system.	Cephalalgia	6		16		22	
	Delirium tremens						
	Epilepsia	1				2	
	Neuralgia	1		3		10	
	Arachnitis acuta	1				1	
	Ophthalmia	18		1		20	
Diseases of the urinary and genital organs.	Stricturæ urethræ			1		1	
	Syphilis primitiva	7				7	
	Syphilis constitutiva	9		12		22	
	All other diseases	7		14		21	
Diseases of the serous and cavalent vessels.	Ascites						
	All other diseases					2	
Diseases of the fibrous and muscular structures.	Pedalgia	1		1		2	
	Podagra	15				15	
	Rheumatismus	27		68		175	
Abscesses and ulcers	Fistula						
	Phlegmone et abscessus	37		38		154	
	Ulcus	9		8		25	
	Anthrax	2		6		8	
	Amputatio						
Wounds and injuries	Contusio	40		62		167	
	Fissura			1		2	
	Luxatio			5		8	
	Punctio						
	Subluxatio	25		11		50	
	Vulnus incisum	11		22		75	
	Vulnus laceratum	4		11		40	
	Vulnus punctum	3		1		7	
	Vulnus sclopeticum	4	1	2		19	3
Miscellaneous	Debilitas	8		13	1	20	1
	Ebrietas	5		6		37	1
	Hemorrhois	9		3		33	
	Hernia	1		1		2	
	Morbi cutis	18		7		33	
	Morbi oculi	6		12		40	
	Scorbutus	15		19		34	
	Suicidium						
	All other diseases	49	1	46	1	210	3
	Total	1,102	4	825	4	3,250	13

AMONG THE TROOPS IN THE DEPARTMENT OF UTAH.

CLASSES OF DISEASES.		FOURTH QUARTER							
	YEARS	1857.		1858.		1859.		TOTAL.	
	MEAN STRENGTH	1,714.		3,175.		2,701.		7,590.	
	SPECIFIC DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
Fevers	Febris congestiva		1						1
	Febris continua communis	5		11	1	5		21	1
	Febris intermittens quotidiana	16		37		28		81	
	Febris intermittens tertiana	24		19		14		57	
	Febris intermittens quartana								
	Febris remittens	18		5	1	71	2	94	3
	Febris typhus et typhodes		1	6	3	2	2	8	6
	Febris typhus icterodes								
Eruptive fevers	Erysipelas					10		10	
	Rubeola								
	Scarlatina								
	Variola								
	Variolodes								
Diseases of the organs connected with the digestive system.	Cholera Asiatica								
	Diarrhœa	194	1	196		140		530	1
	Dysenteria acuta	20		42		27		89	
	Dysenteria chronica								
	Enteritis					2	1	2	1
	Hepatitis acuta						1		1
	Hepatitis chronica								
	Obstipatio	21		53		69		137	
	All other diseases	24	1	65		70		159	1
Diseases of the respiratory system.	Bronchitis, acuta et chronica	22		19		14		55	
	Catarrhus	197		156		210		583	
	Phthisis pulmonalis	1		3		1	1	5	1
	Pleuritis	1		1		1		3	
	Pneumonia	7		4		2		13	
	All other diseases	1		2		4	1	7	1
Diseases of the brain and nervous system.	Cephalalgia	5		12		10		27	
	Delirium tremens					4		4	
	Epilepsia	3		6				9	
	Neuralgia	8		5		15		28	
	All other diseases	1		2		1		4	
Diseases of the urinary and genital organs.	Gonorrhœa	2		2		1		5	
	Structura urethræ	1		2		1		4	
	Syphilis primitiva					1		1	
	Syphilis consecutiva	16		6		2		24	
	All other diseases	4	1	3		4		11	1
Diseases of the serous and exhalent vessels.	Ascites								
	All other diseases					1		1	
Diseases of the fibrous and muscular structures.	Pernio	96		27		20		143	
	Podagra								
	Rheumatismus	47	1	86		69		202	1
Abscesses and ulcers	Fistula								
	Phlegmon et abscessus	35		47		79		161	
	Ulcus	11		7		17		35	
Wounds and injuries	Ambustio	2		7		7		16	
	Amputatio								
	Contusio	60		59		84		203	
	Fractura	2				2		4	
	Luxatio			3		2		5	
	Punctio	1						1	
	Sub luxatio	12		16		42		70	
	Vulnus morsum	14		46		22		82	
	Vulnus lacceratum	4		31		38		73	
	Vulnus punctum	2		3		3		8	
	Vulnus sclopeticum	6		4	1	5		15	1
Miscellaneous	Debilitas	1		8		5		14	
	Ebrietas			7		22		29	
	Hæmorrhois	15		15		14		44	
	Hernia			3		1		4	
	Morbi cutis	4		12		4		20	
	Morbi oculi	23		19		19		61	
	Scorbutus	7		3				10	
	All other diseases	39	1	77		107		223	1
	Total	972	7	1,169	6	1,263	8	3,395	21

CONSOLIDATED ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING IN THE ARMY OF THE UNITED STATES.

Years	[illegible]	[illegible]	1856.	[illegible]	[illegible]	[illegible]	[illegible]
Mean strength	[illegible]	[illegible]	14,434.	[illegible]	14,[illegible]	15,510.	187,144.

DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
FEVERS.														
Febris congestiva	.....	36	.....	.....	1	2	7	2	4	2	8	1	23	47
Febris continua communis	2,207	23	117	1	204	5	92	2	165	4	165	2	3,070	49
Febris intermittens quotidiana	36,956	22	3,031	2	4,515	1	2,649	.....	1,808	.....	2,664	.....	51,623	25
Febris intermittens tertiana	31,916	7	2,368	.....	4,044	.....	2,251	.....	2,409	.....	1,875	.....	44,857	7
Febris intermittens quartana	1,282	2	84	.....	71	.....	180	.....	92	.....	53	.....	1,757	2
Febris remittens	10,299	210	428	5	841	13	599	7	602	5	626	6	13,395	249
Febris typhus et typhoid	575	118	39	10	124	21	35	14	94	18	48	21	917	202
Febris typhus heterodes	723	299	48	29	3	2	92	14	2	.....	132	72	1,000	417
ERUPTIVE FEVERS.														
Erysipelas	515	14	22	....	78	1	28	.....	42	.....	31	.....	729	15
Rubeola	293	1	2	.....	32	.....	5	1	32	.....	.....	.....	322	2
Scarlatina	67	.....	5	1	.....	.....	2	1	5	.....	3	.....	85	2
Variola	85	14	10	.....	3	1	6	.....	14	.....	7	.....	134	15
Varicelles	88	2	16	.....	.....	.....	2	.....	2	.....	7	.....	115	2
All other diseases of this class	.....	.....	6	....	3	.....	.....	.....	2	.....	3	.....	14	.....
DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.														
Cholera Asiatica	1,628	456	451	104	216	58	5	.....	12	6	.....	.....	2,312	564
Cholera morbus	2,025	20	140	3	113	3	124	1	180	1	129	.....	2,711	28
Colica	4,757	2	520	4	666	1	434	.....	538	1	405	.....	7,118	8
Constipatio	10,582	2	1,424	.....	2,108	.....	1,423	.....	1,592	.....	1,522	.....	18,651	2
Diarrhœa	43,851	385	4,403	16	6,768	38	4,671	12	4,966	9	3,823	.....	68,481	460
Dysenteria acuta	15,081	168	962	9	1,816	21	1,012	1	961	6	755	6	20,589	211
Dysenteria chronica	1,739	276	87	8	71	15	71	13	125	7	39	6	2,132	325
Dyspepsia	1,841	1	118	.....	225	.....	198	.....	219	1	240	.....	2,812	2
Enteritis	230	38	16	5	41	6	30	2	23	2	10	1	350	54
Gastritis	905	21	38	1	78	2	50	1	53	.....	44	1	1,177	26
Hæmatemesis	55	2	6	.....	5	.....	5	1	9	.....	4	1	84	5
Hepatitis acuta	263	7	11	.....	13	1	28	.....	22	.....	13	.....	350	8
Hepatitis chronica	210	14	7	1	14	1	11	1	16	2	10	.....	271	18
Ileitis	369	4	22	.....	50	3	22	.....	29	.....	14	.....	506	7
Parotitis	344	1	29	.....	27	.....	89	1	56	.....	8	.....	553	2
Peritonitis	193	24	3	2	26	7	2	2	9	1	6	1	239	37
Splenitis	145	1	12	.....	17	1	11	.....	10	.....	.....	.....	195	2
Tonsillitis	3,048	4	291	1	486	.....	507	.....	538	.....	522	.....	5,390	5
All other diseases of this class	.....	.....	29	.....	69	.....	.....	.....	.....	.....	181	2	279	2
DISEASES OF THE RESPIRATORY SYSTEM.														
Asthma	291	2	22	....	25	1	22	.....	24	.....	22	1	406	4
Bronchitis acuta	1,614	21	321	3	439	.....	281	2	493	1	501	.....	3,649	27
Bronchitis chronica	236	14	28	.....	52	1	43	2	20	1	34	.....	433	18
Catarrhus epidemicus	2,142	.....	50	.....	.....	.....	336	.....	536	.....	296	.....	3,360	.....
Catarrhus	30,969	9	2,762	.....	4,538	.....	2,835	.....	3,829	.....	4,125	.....	49,058	9
Hæmoptysis	265	11	15	1	41	1	24	2	18	1	25	1	388	17
Laryngitis	184	6	20	.....	31	.....	31	.....	19	.....	30	.....	315	6
Phthisis pulmonalis	442	257	25	14	46	22	42	15	46	18	60	18	661	344
Pleuritis	2,363	21	128	1	171	1	99	.....	130	5	142	2	3,033	30
Pneumonia	1,416	127	155	23	110	20	108	15	167	21	117	18	2,073	224
All other diseases of this class	.....	.....	1	.....	9	3	.....	.....	.....	.....	3	.....	13	3
DISEASES OF THE CIRCULATORY SYSTEM.														
Aneurism	5	4	4	1	1	.....	.....	.....	1	....	1	2	19	7
Angina pectoris	43	2	10	.....	9	.....	7	.....	4	.....	8	.....	91	2
Carditis	22	2	5	1	10	4	6	3	7	4	8	3	58	17
Endocarditis	.....	1	.....	.....	.....	.....	1	.....	28	.....	12	1	42	2
Pericarditis	59	12	6	....	11	1	7	1	10	....	17	1	93	15
Varix	143	.....	5	....	34	....	32	....	29	....	23	.....	295	....

CONSOLIDATED ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING IN THE ARMY OF THE UNITED STATES—Continued.

YEARS	1840 to 1854.		1855.		1856.		1857.		1858.		1859.		AGGREGATE STRENGTH.	
MEAN STRENGTH	120,622.		9,367.		14,434.		12,701.		14,510.		15,510.		187,144.	
DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
DISEASES OF THE BRAIN AND NERVOUS SYSTEM.														
Apoplexia	93	53	14	4	13	5	5	1	13	4	5	2	143	69
Cephalalgia	6,699	.....	343	.....	617	.....	416	.....	531	.....	496	.....	9,102	.....
Cerebritis	2	4	.....	.....	.....	.....	4	2	.....	.....	.....	.....	6	6
Chorea	20	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	22	.....
Delirium tremens	1,699	98	112	12	124	11	123	5	189	15	125	10	2,372	151
Epilepsia	894	13	47	1	68	.....	51	.....	62	2	70	3	1,192	19
Ictus solis	30	9	8	.....	14	2	8	2	31	1	11	.....	102	14
Mania	182	6	13	1	9	.....	24	.....	19	1	17	.....	264	8
Melancholia	47	.....	6	.....	10	.....	9	.....	8	.....	8	.....	88	.....
Meningitis	19	21	1	.....	3	.....	3	.....	3	2	4	1	63	24
Neuralgia	889	3	106	.....	174	.....	157	.....	199	.....	173	.....	1,698	3
Paralysis	187	11	6	2	21	2	12	1	16	.....	20	.....	262	16
Tetanus	17	7	1	.....	2	1	1	.....	2	.....	1	.....	24	8
All other diseases of this class	.....	.....	11	3	21	2	.....	.....	5	1	21	1	57	13
DISEASES OF THE URINARY AND GENITAL ORGANS AND VENEREAL AFFECTIONS.														
Calculus	33	.....	1	.....	1	.....	.....	.....	4	.....	8	.....	47	.....
Cystitis	72	3	3	.....	14	.....	1	.....	10	.....	11	2	111	5
Diabetes	39	.....	5	.....	.....	.....	2	.....	1	.....	4	.....	51	.....
Enuresis	85	.....	1	.....	10	.....	9	.....	13	.....	9	.....	127	.....
Gonorrhœa	5,547	.....	537	.....	615	.....	819	.....	1,026	.....	964	.....	9,508	.....
Ischuria et dysuria	271	2	15	.....	28	.....	39	.....	27	1	31	.....	411	3
Nephritis	104	5	11	1	17	1	10	.....	19	1	4	.....	165	8
Orchitis	1,017	1	104	.....	153	.....	152	.....	134	.....	172	.....	1,732	1
Strictura urethræ	234	.....	17	.....	27	.....	37	.....	31	.....	38	.....	384	.....
Syphilis primitiva	2,883	2	283	.....	362	.....	358	.....	493	.....	445	.....	4,764	2
Syphilis consecutiva	1,163	11	94	.....	133	1	145	.....	289	.....	345	1	2,169	13
Ulcus penis non syphiliticum	166	.....	9	.....	26	.....	20	.....	19	.....	23	.....	263	.....
All other diseases of this class	7	.....	25	.....	39	1	74	.....	133	1	151	.....	429	2
DISEASES OF THE SEROUS EXHALENT VESSELS.														
Anasarca	237	18	6	.....	39	.....	11	.....	11	1	14	2	298	21
Ascites	115	30	6	2	7	3	4	1	4	1	5	.....	141	37
Hydrarthrus	5	.....	1	.....	1	.....	6	.....	.....	.....	1	.....	14	.....
Hydrocele	31	.....	2	.....	2	.....	2	.....	3	.....	1	.....	41	.....
Hydrothorax	29	21	2	1	.....	.....	1	.....	.....	.....	4	2	36	24
DISEASES OF THE FIBROUS AND MUSCULAR STRUCTURES.														
Podagra	70	.....	3	.....	1	.....	1	.....	6	.....	1	.....	85	.....
Rheumatismus acutus	8,792	12	729	1	1,122	2	1,088	.....	1,379	1	1,160	2	14,270	18
Rheumatismus chronicus	4,365	14	277	.....	462	.....	576	.....	660	1	787	.....	7,127	15
ABSCESSES AND ULCERS.														
Fistula	197	.....	7	.....	12	.....	22	1	17	.....	10	.....	265	1
Paronychia	304	.....	.....	.....	.....	.....	215	.....	184	.....	.....	.....	703	.....
Phlegmon et abscessus	14,802	12	1,788	1	2,294	1	1,772	2	1,778	.....	1,877	2	24,311	18
Ulcus	6,541	5	414	2	609	.....	543	2	626	.....	539	.....	9,272	9
WOUNDS AND INJURIES.														
Ambustio	1,315	4	106	1	141	.....	144	.....	140	.....	160	2	2,006	7
Concussio cerebri	124	14	19	.....	16	1	19	.....	11	2	17	1	206	18
Contusio	16,676	10	1,701	.....	2,214	.....	2,394	2	2,399	.....	2,459	1	27,843	13
Fractura	895	21	53	3	109	.....	112	1	108	1	114	2	1,321	28
Gelatio (Pernio)	812	3	73	.....	279	1	228	2	118	2	123	1	1,633	9

CONSOLIDATED ABSTRACT OF THE PRINCIPAL DISEASES AND DEATHS OCCURRING IN THE ARMY OF THE UNITED STATES—Continued.

YEARS	1840 to 1854.		1855.		1856.		1857.		1858.		1859.		AGGREGATE STRENGTH.	
MEAN STRENGTH	120,632		9,367.		14,434.		12,701.		14,510.		15,510.		187,144.	
DISEASES.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.	Cases.	Died.
WOUNDS AND INJURIES—continued.														
Hernia	700	.....	32	.....	69	.....	67	.....	52	.....	54	.....	974	.....
Luxatio	651	1	49	.....	51	.....	64	3	72	.....	65	.....	932	4
Morsus serpentis	65	2	10	.....	18	.....	6	.....	4	.....	4	.....	107	2
Punctio	218	.....	9	.....	13	.....	29	.....	38	.....	12	.....	319	.....
Subluxatio	4,881	1	520	.....	711	.....	645	.....	634	.....	778	.....	8,169	1
Vulnus incisum	6,659	14	457	.....	629	5	673	2	635	1	663	1	9,728	23
Vulnus contusum vel laceratum	1,605	6	236	1	363	.....	520	.....	608	.....	670	.....	4,992	7
Vulnus punctum	1,081	29	139	8	153	2	152	1	197	5	188	6	1,910	42
Vulnus sclopeticum	1,233	161	100	6	199	29	199	11	138	16	127	13	1,996	236
DISEASES OF THE EYE.														
Amaurosis	73	.....	8	.....	8	.....	10	.....	4	.....	5	.....	108	.....
Hemeralopia	334	.....	33	.....	31	.....	72	.....	26	.....	10	.....	508	.....
Ophthalmia	5,680	1	498	.....	681	.....	646	.....	617	.....	660	.....	8,692	1
DISEASES OF THE EAR.														
Otalgia et otitis	1,001	1	98	.....	204	.....	159	.....	153	.....	127	.....	1,742	1
ALL OTHER DISEASES.														
Amputatio	114	3	10	.....	21	.....	5	.....	4	.....	.....	.....	153	3
Anchylosis	8	.....	.....	.....	.....	.....	3	.....	4	.....	.....	.....	15	.....
Atrophia	7	6	1	.....	1	1	.....	.....	.....	.....	.....	.....	9	7
Cachexia	243	.....	1	.....	8	.....	5	.....	6	.....	4	1	267	1
Debilitas	2,352	16	387	2	557	3	429	1	268	.....	238	1	4,227	23
Ebrietas	3,830	53	315	2	373	3	491	3	638	4	625	2	6,272	67
Epistaxis	28	1	.....	.....	.....	.....	9	.....	.....	.....	.....	.....	37	1
Exostosis	22	.....	2	.....	1	.....	3	.....	8	.....	6	.....	42	.....
Hæmorrhois	1,951	2	158	.....	257	.....	220	.....	279	.....	285	.....	3,150	2
Morbi cutis	1,804	.....	171	.....	301	.....	329	.....	386	.....	322	.....	3,319	.....
Necrosis	19	.....	2	.....	.....	.....	1	.....	1	.....	5	.....	31	.....
Nostalgia	3	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	7	.....
Odontalgia	2,166	.....	253	.....	365	.....	370	.....	417	.....	351	.....	3,922	.....
Prolapsus ani	52	.....	1	.....	5	.....	5	.....	7	.....	14	.....	84	.....
Scirrhus	6	2	.....	.....	.....	.....	1	.....	1	.....	1	.....	9	2
Scorbutus	2,132	40	386	1	1,068	7	600	.....	310	2	439	2	4,935	52
Scrofula	175	3	14	.....	31	.....	19	.....	18	.....	19	.....	276	3
Suicidium	19	19	2	2	3	3	3	3	4	4	9	9	40	40
Toxicum	345	3	47	1	42	1	57	.....	68	.....	89	3	648	8
Tumores	200	.....	.....	.....	.....	.....	27	.....	.....	.....	39	.....	266	.....
Vermes	146	.....	17	.....	32	.....	30	.....	36	.....	46	.....	305	.....
Morbi varii	22,941	136	1,456	8	2,079	12	1,735	12	1,847	13	1,514	4	31,572	185
Total	352,785	3,617	30,429	309	46,319	358	35,779	172	38,188	267	36,599	247	540,099	4,949

* The statistics of 1847 and 1848 (war with Mexico) are excluded, it having been found impossible to collate correct statistics for those years.

† The deaths reported from "febris congestiva" are to be considered as congestive terminations of intermittent fever.

‡ Cases of vaccination, in which the soldier has been incapacitated for duty.

§ Soldiers with "pathisis pulmonalis" are frequently discharged from the service, in accordance with their own wishes.

¶ Cases of "pronyelitis" have been very generally reported under "phlegmon et abscessus."

*Consolidated table exhibiting the amount and annual ratio of sickness and mortality in each region.**

No.	Regions.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength	
					Treated.	Died.
1	Coast of New England	4,529	7,848	40	1,755	8.8
2	Harbor of New York	12,856	40,899	237	3,181	18.4
3	West Point	9,400	43,423	37	4,619	3.9
4	North Interior, East	3,553	6,426	39	1,808	10.9
5	The Great Lakes	10,770	23,514	142	2,183	13.1
6	North Interior, West	13,892	31,470	166	2,265	12
7	Middle Atlantic	7,671	17,921	85	2,336	11.1
8	Middle Interior, East	3,804	12,098	57	3,180	14.9
9	Newport Barracks, Kentucky	2,475	6,655	72	2,692	29.3
10	Jefferson Barracks and St. Louis Arsenal	6,956	25,062	304	3,603	43.7
11	Middle Interior, West	9,681	25,384	217	2,622	22.4
12	South Atlantic	3,401	9,040	93	2,658	27.3
13	South Interior, East	6,419	19,189	260	2,989	40.5
14	South Interior, West	12,312	41,303	271	3,354	22
15	Atlantic Coast of Florida	1,835	6,451	45	3,515	24
16	Interior, and Gulf Coast of Florida	3,939	19,312	119	4,902	30.2
17	Texas, Southern Frontier	7,310	26,169	363	3,580	49.6
18	Texas, Western Frontier	13,183	40,384	259	3,063	19.6
19	New Mexico†	13,445	34,823	249	2,590	18.5
20	California, Southern	3,865	8,139	70	2,105	18
21	California, Northern	3,853	10,729	99	2,784	25.6
22	Oregon and Washington	8,974	20,661	88	2,302	9.8
23	Utah	5,842	10,781	48	1,845	8.2

* Asiatic cholera excluded.

† Gunshot wounds excluded.

Consolidated table exhibiting the amount and annual ratio of sickness and mortality for each region from fevers.

No.	Regions.	Mean strength.	Number treated.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
1	Coast of New England	4,529	566	2	1 in 283	125
2	Harbor of New York	12,856	3,307	50	1 in 66	256
3	West Point	9,400	1,221	3	1 in 407	130
4	North Interior, East	3,553	384	3	1 in 128	108
5	The Great Lakes	10,770	3,503	22	1 in 159	325
6	North Interior, West	13,892	4,106	17	1 in 241	295
7	Middle Atlantic*	8,407	2,513	45	1 in 56	299
8	Middle Interior, East	3,804	1,103	8	1 in 138	289
9	Newport Barracks, Kentucky	2,475	1,593	9	1 in 177	643
10	Jefferson Barracks and St. Louis Arsenal	6,956	6,114	54	1 in 113	879
11	Middle Interior, West	9,681	8,629	27	1 in 319	890
12	South Atlantic	3,401	1,080	44	1 in 25	317
13	South Interior, East	6,419	4,460	90	1 in 50	694
14	South Interior, West	12,312	15,910	44	1 in 362	1,292
15	Atlantic Coast of Florida	1,835	1,625	21	1 in 77	885
16	Interior, and Gulf Coast of Florida	3,939	8,073	39	1 in 207	2,049
17	Texas, Southern Frontier	7,310	8,911	133	1 in 67	1,219
18	Texas, Western Frontier	13,183	11,387	20	1 in 569	863
19	New Mexico	13,445	5,725	30	1 in 191	425
20	California, Southern	3,865	699	13	1 in 54	181
21	California, Northern	3,853	3,433	22	1 in 156	890
22	Oregon and Washington	8,974	2,117	4	1 in 529	236
23	Utah	5,842	1,206	14	1 in 86	206

* This includes cases of yellow fever brought to Fort Monroe from Vera Cruz, in 1848. (See pages 83 and 84 of this report.)

*Consolidated table exhibiting the amount and annual ratio of sickness and mortality in each region from diseases of the organs connected with the digestive system.**

No.	Regions.	Mean strength.	Number treated.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
1	Coast of New England	4,529	1,742	9	1 in 193	384
2	Harbor of New York	12,856	11,463	52	1 in 220	891
3	West Point	9,400	8,782	6	1 in 1,464	934
4	North Interior, East	3,553	1,470	3	1 in 490	413
5	The Great Lakes	10,770	4,649	27	1 in 172	431
6	North Interior, West	13,892	7,271	39	1 in 186	523
7	Middle Atlantic	8,407	4,948	27	1 in 183	588
8	Middle Interior, East	3,804	3,830	8	1 in 479	1,007
9	Newport Barracks, Kentucky	2,475	2,004	18	1 in 111	809
10	Jefferson Barracks and St. Louis Arsenal	6,956	8,254	99	1 in 83	1,186
11	Middle Interior, West	9,681	7,837	41	1 in 191	809
12	South Atlantic	3,401	2,460	15	1 in 164	723
13	South Interior, East	6,419	5,351	65	1 in 82	833
14	South Interior, West	12,312	7,251	72	1 in 100	589
15	Atlantic Coast of Florida	1,835	2,098	11	1 in 190	1,143
16	Interior, and Gulf Coast of Florida	3,939	4,374	38	1 in 115	1,110
17	Texas, Southern Frontier	7,310	5,669	105	1 in 54	775
18	Texas, Western Frontier	13,183	8,890	91	1 in 98	674
19	New Mexico	13,445	7,056	59	1 in 119	524
20	California, Southern	3,865	2,090	23	1 in 91	540
21	California, Northern	3,853	2,006	29	1 in 69	520
22	Oregon and Washington	8,974	4,452	10	1 in 445	496
23	Utah	5,842	3,253	8	1 in 406	556

* Asiatic cholera excluded.

Consolidated table exhibiting the amount and annual ratio of sickness and mortality in each region from diseases of the respiratory system.

No.	Regions.	Mean strength.	Number treated.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strength.
1	Coast of New England	4,529	1,521	9	1 in 169	336
2	Harbor of New York	12,856	6,812	70	1 in 97	529
3	West Point	9,400	9,287	16	1 in 580	988
4	North Interior, East	3,553	1,586	16	1 in 99	446
5	The Great Lakes	10,770	4,369	51	1 in 85	406
6	North Interior, West	13,892	4,895	52	1 in 94	352
7	Middle Atlantic	8,407	3,171	29	1 in 109	377
8	Middle Interior, East	3,804	1,780	14	1 in 127	468
9	Newport Barracks, Kentucky	2,475	965	15	1 in 64	390
10	Jefferson Barracks and St. Louis Arsenal	6,956	3,390	85	1 in 40	487
11	Middle Interior, West	9,681	4,489	56	1 in 80	463
12	South Atlantic	3,401	1,309	10	1 in 130	385
13	South Interior, East	6,419	1,615	39	1 in 41	252
14	South Interior, West	12,312	3,209	61	1 in 526	260
15	Atlantic Coast of Florida	1,835	289	3	1 in 96	157
16	Interior, and Gulf Coast of Florida	3,939	1,185	13	1 in 91	300
17	Texas, Southern Frontier	7,310	1,870	32	1 in 58	255
18	Texas, Western Frontier	13,183	2,813	38	1 in 74	213
19	New Mexico	13,445	3,840	41	1 in 93	285
20	California, Southern	3,865	853	14	1 in 61	220
21	California, Northern	3,853	1,024	12	1 in 85	265
22	Oregon and Washington	8,974	2,516	22	1 in 114	280
23	Utah	5,842	1,722	6	1 in 287	295

Consolidated table exhibiting the amount and annual ratio of sickness and mortality in each region from phthisis pulmonalis.

No.	Regions.	Mean strength.	Number treated.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strgth.
1	Coast of New England	4,529	21	6	1 in 3.5	4.6
2	Harbor of New York	12,856	73	40	1 in 1.8	5.6
3	West Point	9,400	14	14	1 in 1	1.5
4	North Interior, East	3,553	17	10	1 in 1.7	4.7
5	The Great Lakes	10,770	49	34	1 in 1.4	4.5
6	North Interior, West	13,892	44	27	1 in 1.6	3.1
7	Middle Atlantic	8,407	28	19	2 in 3	3.3
8	Middle Interior, East	3,804	11	6	1 in 1.8	2.8
9	Newport Barracks, Kentucky	2,475	9	6	1 in 1.5	3.6
10	Jefferson Barracks and St. Louis Arsenal	6,956	26	24	1 in 1.1	3.7
11	Middle Interior, West	9,681	36	21	1 in 1.7	3.7
12	South Atlantic	3,401	27	6	1 in 4.5	7.9
13	South Interior, East	6,419	44	29	1 in 1.5	6.9
14	South Interior, West	12,312	41	28	1 in 1.5	3.3
15	Atlantic Coast of Florida	1,835	5	2	1 in 2.5	2.7
16	Interior, and Gulf Coast of Florida	3,939	31	6	1 in 5	7.8
17	Texas, Southern Frontier	7,310	24	16	1 in 1.5	3.3
18	Texas, Western Frontier	13,183	48	22	1 in 2.2	3.6
19	New Mexico	13,445	25	4	1 in 6.2	1.8
20	California, Southern	3,865	19	9	1 in 2.1	4.9
21	California, Northern	3,853	21	9	1 in 2.3	5.4
22	Oregon and Washington	8,974	45	10	1 in 4.5	5
23	Utah	5,842	8	1	1 in 8	1.3

Consolidated table exhibiting the amount and annual ratio of sickness and mortality in each region from rheumatism.

No.	Regions.	Mean strength.	Number treated.	Deaths.	Proportion of deaths to cases.	Ratio of cases per 1,000 of mean strgth.
1	Coast of New England	4,529	386	0	0 in 386	85
2	Harbor of New York	12,856	1,378	1	1 in 1,378	107
3	West Point	9,400	1,079	1	1 in 1,079	115
4	North Interior, East	3,553	270	1	1 in 270	76
5	The Great Lakes	10,770	1,185	1	1 in 1,185	110
6	North Interior, West	13,892	1,721	3	1 in 574	123
7	Middle Atlantic	8,407	875	1	1 in 875	104
8	Middle Interior, East	3,804	399	1	1 in 399	104
9	Newport Barracks, Kentucky	2,475	156	0	0 in 156	63
10	Jefferson Barracks and St. Louis Arsenal	6,956	671	0	0 in 671	96
11	Middle Interior, West	9,681	1,305	0	0 in 1,305	134
12	South Atlantic	3,401	381	0	0 in 381	112
13	South Interior, East	6,419	840	0	0 in 840	131
14	South Interior, West	12,312	1,434	2	1 in 717	116
15	Atlantic Coast of Florida	1,835	229	0	0 in 229	124
16	Interior, and Gulf Coast of Florida	3,939	552	0	0 in 552	140
17	Texas, Southern Frontier	7,310	955	3	1 in 318	13
18	Texas, Western Frontier	13,183	1,581	5	1 in 316	120
19	New Mexico	13,445	2,299	5	1 in 460	171
20	California, Southern	3,865	450	2	1 in 225	116
21	California, Northern	3,853	505	0	0 in 505	131
22	Oregon and Washington	8,974	1,381	2	1 in 690	154
23	Utah	5,842	688	1	1 in 688	117

Table exhibiting the annual ratio of sickness and mortality in the Army of the United States.

Years.	Mean strength.	Number treated.	Deaths.	Ratio per 1,000 of mean strength.	
				Treated.	Deaths.
1840	10,116	28,167	254	2,784	25
1841	9,748	37,499	387	3,849	40
1842	10,000	32,426	303	3,243	30
1843	9,863	26,820	160	2,719	16
1844	8,570	20,982	96	2,448	11
1845	8,590	22,496	78	2,619	9
1846	9,083	26,689	246	2,938	27
1849*	9,148	28,013	734	3,062	80
1850	8,970	24,079	294	2,684	34
1851	9,242	25,276	299	2,735	32
1852	9,203	25,765	229	2,800	25
1853	9,994	29,575	279	2,959	28
1854	8,095	24,998	258	3,088	32
1855	9,367	30,429	309	3,281	33
1856	14,434	46,319	358	3,209	25
1857	12,701	35,779	172	2,817	14
1858	14,510	38,188	207	2,632	14
1859	15,510	36,599	247	2,360	16
Total	187,144	540,099	4,910	2,886	26

*1847, 1848, war with Mexico, omitted.

Table showing the following statistical facts in relation to the mortality among the officers of the regular Army.

No.	Years.	No. of officers in the army.	Deaths, ordinary and accidental.	Deaths, killed & wounded.	Total.	No.	Years.	No. of officers in the army.	Deaths, ordinary and accidental.	Deaths, killed & wounded.	Total.
1	1832	594	24	0	24	18	1849	884	35	1	36
2	1833	603	5	0	5	19	1850	889	19	1	20
3	1834	603	23	0	23	20	1851	896	22	1	23
4	1835	603	22	0	22	21	1852	964	16	0	16
5	1836	648	26	7	33	22	1853	952	43	0	43
6	1837	648	16	6	22	23	1854	948	25	0	25
7	1838	735	18	0	18	24	1855	1,040	21	1	22
8	1839	735	22	2	24	25	1856	1,060	14	1	15
9	1840	735	12	2	14	26	1857	1,085	19	0	19
10	1841	735	20	0	20	27	1858	1,084	20	4	24
11	1842	733	16	0	16	28	1859	1,083	15	0	15
12	1843	733	4	0	4						
13	1844	733	9	0	9		Total	22,977	561	91	652
14	1845	734	19	0	19						
15	1846	775	16	21	37		Annual average	821	20.04	3.25	23.30
16	1847	933	36	44	80						
17	1848	882	24	0	24		Ratio per cent		2.44	0.40	2.84

It has been ascertained that during the period embraced in the above table the average annual strength of the medical staff of the army was 85; the ratio per cent. of deaths, "ordinary and accidental," 2.40; of "deaths, killed and wounded," 0.08; and the "total" deaths 2.49 per cent.

APPENDIX.

ARMY METEOROLOGICAL REGISTER,

FOR FIVE YEARS,

FROM

JANUARY, 1855, TO JANUARY, 1860.

INTRODUCTION.

Upon the organization of the Medical Department of the Army in 1819, the Surgeon General instituted a system of meteorological observations at the military posts of the United States, which, modified from time to time, is still in operation.

The results of these observations for 1820 and 1821 were published at the end of each year. Those of subsequent observations have been published in a series of army meteorological registers, of which the first volume, embracing the years from 1822 to 1825, inclusive, was issued by Surgeon General Lovell in 1826. The second, third, and fourth volumes, (the last a quarto of 763 pages,) comprising, respectively, the years from 1826 to 1830, 1831 to 1842, 1843 to 1854, inclusive, were prepared and published in 1840, 1851, and 1854, under the direction of present Surgeon General.

The published contributions of the Medical Department of the Army to the science of meteorology have been confined to observations of the thermometer, the direction and force of winds, clearness of the sky, and fall of rain and snow. The system, however, includes observations of the barometer, attached thermometer, and hygrometer. For a long period hourly observations were taken at the equinoxes and solstices.

The original registers of these observations, have been transmitted monthly to the Surgeon General's office, and now form sixty-four large folio volumes. These, though too voluminous for publication, have been frequently consulted by officers engaged in the explorations for a railroad from the Mississippi river to the Pacific, and in various boundary surveys, and also by persons desirous of elucidating some special point in meteorology.

These observations, have now been continued forty-five years, and have been taken at more than two hundred stations, extending from the Atlantic to the Pacific coast, and from the northern to the southern boundaries of the United States.

The positions and altitudes of the military posts have been obtained as far as practicable, from the official reports of officers in charge of the northeastern boundary survey, of the Coast Survey, of the Mexican boundary survey, and of the several surveys for a route for a railroad to the Pacific. Where positive astronomical determinations could not be obtained, the positions and altitudes are given as reported by medical officers, and are to be considered as close approximations only.

To insure accuracy in the following tables, all the original monthly registers have been carefully examined and recomputed. In the preparation of the consolidated temperature and rain tables, the series of "Consolidated Temperature and Rain Tables" published in the report

of 1856, has been compared with the original records, the errors corrected, and the means for months, seasons, and years recalculated. This examination has served to prove the *general correctness* of those tables; the principal errors being in the *means* for 1843, and in the table for Fort Constitution, in 1842; the observations at 9, P. M., at that post, having been transcribed from the printed register for that year, instead of the means of the four daily observations, the two columns being parallel.

It is not to be expected that meteorological observations can be taken at military posts with that extreme accuracy which is attainable in institutions where persons are exclusively engaged in such pursuits. The medical officers have other and more imperative duties to perform, and these observations must at times be taken by the hospital stewards, who, though generally sufficiently intelligent, may not always observe the prescribed regulations.

The original registers are carefully examined when received at the Surgeon General's office, and every effort is made to ascertain the correctness of unusual records, whether of temperature or of rain. It is believed that the errors which have failed to be corrected are so unfrequent and slight as not to affect the accuracy of the results here presented.

From January, 1819, to January, 1841, the army meteorological observations were made three times daily, at the hours of "7, A. M., 2, P. M., and 9, P. M." In 1841 they were taken at "sunrise, 2, P. M., and 9, P. M.;" and in 1842 at "sunrise, 2, P. M., sunset, and 9, P. M." From 1843 to 1855, the hours of observation were "a little before sunrise, 9, A. M., 3, P. M., and 9, P. M."

In the preparation of the Meteorological Register, published in 1854, it was satisfactorily proved, by an extended examination of the records of "hourly observations," that the mean of observations of the thermometer at 7, A. M., 2, P. M., and 9, P. M., more nearly approximated the true daily mean, than did the means of any of the four daily observations that had been tried.

It was therefore determined to return to the hours originally adopted by the Medical Department of the Army, but as this change was not effected simultaneously at all the stations the registers for part of 1855 were not uniform, and the results of some of the observations could not be presented in the form of tables that had been decided upon for this report.

R. H. C.

MONTH OF JANUARY, 1855.

STATIONS.	THERMOMETER.						WINDS.								WEATHER	RAIN & SNOW	
	MEAN TEMPERATURE.				RANGE.		DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S	SW	W	NW	Fair.	Cl'dy	Rain	Snow	Amount in inches.
Fort Independence				31.32	54	14	40											6	3	6.34
Fort Hamilton				30.93	45	11	34											6	3	3.51
Fort Columbus				31.25	44	15	29											5	6	3.30
West Point				30.85	44	16	28											9	3	3.63
Fort Ontario				28.13	48	—10	58											6	6	1.90
Allegheny Arsenal				32.27	55	11	44											4	2	2.15
Carlisle Barracks				30.38	50	15	35											1	4	3.37
Fort Delaware				31.93	61	15	46											6	2	2.49
Fort McHenry				36.61	52	18	34											5	3	2.50
Fort Monroe				43.48	63	26	37											4	0	1.60
Fort Moultrie				51.53	68	29	38											7	0	.81
Fort Capron				63.90	76	37	39											16	0	4.81
Fort Ballo				65.35	89	49	40											12	0	9.01
Key West				67.18	77	54	23											6	0	3.94
Fort Myers				63.75	79	40	39											5	0	3.20
Fort Brooke				59.93	74	34	40											3	0	2.34
Barrancas Barracks				56.43	72	28	44											4	0	1.09
Mount Vernon Arsenal				53.19	75	23	52											3	0	.45
Baton Rouge				55.95	75	25	50											3	0	.75
Fort Washita				44.19	71	10	61											3	1	1.16
Fort Smith				41.09	68	8	60											5	0	3.25
Fort Gibson				40.69	69	6	63											5	0	.93
Jefferson Barracks				34.22	66	5	61											6	3	4.99
St. Louis Arsenal				39.90	65	4	61											5	2	4.20
Newport Barracks				34.14	62	11	51											6	3	3.06
Fort Mackinac				17.98	50	- 5	55											1	8	4.74
Fort Brady				9.45	42	— 7	49											7	0	2.13
Fort Snelling				17.09	54	-25	79											0	7	1.67
Fort Ripley				8.42	47	-28	75											9	13	.41
Fort Ridgely				12.46	50	-22	72											0	6	2.34
Fort Leavenworth				28.13	66	— 3	69											3	0	.59
Fort Riley				29.46	67	— 2	69											3	3	.61
Fort Kearny				23.55	62	— 7	69											0	2	1.00
Fort Laramie				35.85	61	2	62											0	1	.04
Fort Arbuckle				41.94	75	5	70											2	0	.20
Fort Belknap				45.92	78	11	67											0	0	0
Fort Chadbourne				48.89	78	14	64											1	0	1.10
Fort McKavett				46.74	71	13	58											1	0	.09
Fort Merrell				54.51	84	20	64											1	0	.35
Fort Brown				60.23	80	35	45											4	0	3.47
Ringgold Barracks				59.38	87	39	48											2	0	1.06
Fort McIntosh				56.63	85	29	56											1	0	.25
Fort Inge				52.21	88	15	73											1	0	.10
Fort Duncan				50.51	91	20	71											0	0	0
Fort Clark				44.06	83	27	56											0	0	0
Fort Davis				19.13	84	22	59											0	0	0

MONTH OF JANUARY, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair	Cl'dy.	Rain.	Snow.	Amount in Inches.
Fort Bliss				50.32	70	34	36											0	0	0
Fort Fillmore				50.08	76	16	60											0	0	0
Fort Thorn				39.14	75	10	65											1	0	.09
Fort Craig				40.51	77	18	59											0	0	0
Albuquerque				34.57	63	9	54											2	2	.20
Santa Fé				31.88	49	5	44											2	2	.55
Fort Union				35.93	64	9	55											0	0	
Fort Massachusetts				19.09	47	16	63											0	0	0
Cantonment Burgwin				25.77	47	0	47											2	2	1.42
Fort Defiance				24.72	63	−17	80											3	3	.83
Fort Yuma				57.92	80	38	42											1	0	.12
San Diego				50.11	78	28	50											2	0	2.40
Fort Miller				46.54	70	32	38											3	0	1.48
San Francisco				50.14	72	35	37											5	0	2.89
Benicia Barracks				45.78	69	32	37											5	0	2.86
Fort Reading				44.64	71	32	39											5	0	3.69
Fort Humboldt				45.50	66	30	36											6	0	3.30
Fort Jones				27.68	60	−4	64											0	2	1.58
Fort Dalles				40.16	62	16	46											9	5	3.03
Fort Lane				37.59	64	27	37											4	0	4.38
Fort Vancouver				42.12	56	28	28											10	0	*13.29
Fort Orford				48.04	65	34	31											15	0	7.81
Fort Steilacoom				41.95	58	22	36											14	2	5.10

* This amount, though greater than the average for January, at Fort Vancouver, appears to be correct.

MONTH OF FEBRUARY, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy	Rain.	Snow.	Amount in inches.
Fort Independence				23.05	42	—10	52											1	1	3.20
Fort Hamilton				24.37	40	4	36											0	5	4.60
Fort Columbus				23.86	40	6	46											0	4	3.45
West Point				22.60	40	—10	50											2	5	4.23
Fort Ontario				19.71	44	—16	60											2	6	1.82
Alleghany Arsenal				21.71	40	— 7	47											2	6	1.77
Carlisle Barracks				22.94	40	0	40											0	4	3.04
Fort Delaware				27.95	42	0	42											2	2	1.70
Fort McHenry				28.92	50	0	50											0	4	4.00
Fort Monroe				34.03	50	18	32											1	0	.40
Fort Moultrie				46.89	64	29	35											5	0	.97
Fort Capron				62.24	89	39	41											6	0	2.56
Fort Dallas				63.24	79	40	39											4	0	.20
Key West Barracks				65.94	78	49	29											5	0	.83
Fort Myers				61.87	79	40	39											2	0	.55
Fort Deynaud				64.41	88	37	51											3	0	1.72
Fort Brooke				56.46	72	36	36											5	0	2.88
Barrancas Barracks				50.14	70	26	44											1	0	1.44
Mount Vernon Arsenal				48.39	77	22	55											2	0	1.16
Baton Rouge				50.45	75	27	48											3	0	2.05
New Orleans				54.85	73	30	43											6	0	2.06
Fort Washita				42.82	78	12	66											2	2	.54
Fort Smith				40.82	73	11	62											0	4	.93
Fort Gibson				38.07	78	6	72											0	3	.48
Jefferson Barracks				30.17	68	5	63											2	2	.93
St. Louis Arsenal				28.19	62	2	60											1	3	1.38
Newport Barracks				24.16	51	6	45											0	2	.45
Fort Mackinac				8.01	36	—22	58											0	2	2.03
Fort Brady				5.21	53	—32	85											0	1	.65
Fort Snelling				12.62	38	—23	61											0	5	.41
Fort Ripley				8.22	32	—22	54											3	2	.28
Fort Ridgely				11.49	40	—16	56											2	4	.70
Fort Leavenworth				38.23	53	— 3	56											0	2	.20
Fort Riley				29.41	74	— 5	79											0	3	.25
Fort Kearny				35.69	68	— 8	76											0	1	.25
Fort Laramie				29.01	63	— 6	69											2	7	1.08
Fort Arbuckle				39.86	83	10	73											0	2	1.28
Fort Belknap				44.49	80	11	69											6	0	.78
Fort Chadbourne				45.88	74	16	58											3	1	2.50
Fort McKavett				44.51	68	8	60											3	0	1.00
Fort Merrill				54.65	86	26	60											6	0	2.19
Fort Brown				61.60	89	38	51											6	0	4.83
Ringgold Barracks				59.03	90	28	62											2	0	.68
Fort McIntosh				57.30	92	29	63											3	0	1.40
Fort Inge				50.63	90	24	66											6	0	1.86
Fort Duncan				53.25	92	26	66											1	0	.91

MONTH OF FEBRUARY, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTIONS, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	N.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Clark				42.36	88	26	62											5	0	1.96
Fort Davis				50.89	82	21	61											0	0	0
Fort Bliss				53.75	70	36	34											0	0	0
Fort Fillmore				50.62	74	30	44											0	0	0
Fort Thorn				47.65	77	11	66											1	0	.20
Fort Craig				46.04	81	21	60											0	0	0
Albuquerque				40.61	75	18	57											1	1	.40
Santa Fé				36.26	54	20	34											1	3	.21
Fort Union				34.95	64	5	59											0	0	0
Fort Massachusetts				25.64	52	— 5	57											0	4	.67
Cantonment Burgwin				32.70	52	6	46											0	3	.05
Fort Defiance				33.62	61	12	49											2	2	1.71
Fort Yuma				61.20	80	40	40											5	0	1.26
San Diego				55.72	81	38	43											10	0	4.83
Fort Miller				53.66	70	41	29											7	0	1.39
San Francisco				54.99	71	41	30											6	0	2.88
Benicia Barracks				52.17	70	36	34											7	0	2.79
Fort Reading				51.56	72	34	38											10	0	6.95
Fort Humboldt				49.97	67	29	38											6	0	4.45
Fort Jones				39.41	70	16	54											10	0	3.83
Fort Dalles				42.57	62	17	45											4	1	.63
Fort Lane				44.01	66	28	38											4	0	1.27
Fort Vancouver				43.71	64	24	40											5	0	3.84
Fort Orford				49.30	67	31	36											12	0	6.04
Fort Steilacoom				43.15	62	22	40											13	0	8.40

MONTH OF MARCH, 1855.

STATIONS	THERMOMETER						WINDS.								WEATHER		RAIN & SNOW	
	MEAN TEMPERATURE			RANGE			DEFLECTIONS, OR NO. OF OBSERVATIONS								DAYS		DAYS.	
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Independence				33.96	62	14	48											4	1	1.16
Fort Hamilton				35.75	59	17	42											6	5	1.41
Fort Columbus				36.04	57	17	40											0	1	1.20
West Point				34.79	58	12	46											1	6	.83
Fort Ontario				30.89	51	17	34											2	4	1.20
Allegheny Arsenal				[illegible]	[illegible]	[illegible]	[illegible]											5	2	3.08
Carlisle Barracks				36.27	53	14	39											2	4	1.88
Fort Delaware				39.31	59	18	41											3	0	2.02
Fort McHenry				39.46	60	29	40											0	3	2.80
Fort Monroe				41.00	62	29	33											6	0	2.00
Fort Moultrie				53.64	74	28	46											5	0	4.83
Fort Capron				64.91	82	38	44											5	0	2.80
Fort Dallas				64.73	80	42	38											5	0	3.90
Key West Barracks				70.28	81	49	32											5	0	2.87
Fort Myers				66.40	87	38	49											4	0	6.40
Fort Desynand				68.93	97	36	61											0	0	0
Fort Brooke				62.08	81	34	47											3	0	3.89
Barancas Barracks				5 .51	75	28	47											4	0	2.86
Mount Vernon Arsenal				57.85	85	23	62											5	0	1.17
Baton Rouge				59.46	83	28	55											3	0	1.07
New Orleans				59.80	80	29	51											6	0	.82
Fort Wachita				51.17	85	21	64											1	0	.13
Fort Smith				49.19	81	20	61											3	1	.50
Fort Gibson				47.80	81	20	61											4	0	.57
Jefferson Barracks				39.41	72	12	60											5	2	3.98
St. Louis Arsenal				37.16	62	10	52											5	1	7.15
Newport Barracks				37.59	56	16	40											4	1	2.51
Fort Mackinac				21.40	41	— 2	43											2	4	1.00
Fort Brady				[illegible]	[illegible]	[illegible]	[illegible]											7	3	1.07
Fort Snelling				25.30	49	—16	65											0	7	1.87
Fort Ripley				23.69	52	—17	69											1	4	1.12
Fort Ragely				27.05	52	— 5	57											1	5	2.32
Fort Leavenworth				5 .26	72	6	66											5	0	.42
Fort Riley				38.72	78	5	73											4	3	.51
Fort Kearny				32.86	73	— 2	75											0	3	1.35
Fort Laramie				36 4.	68	0	68											2	6	1.41
Fort Arbuckle				49.09	87	18	69											2	0	.35
Fort Belknap				53.69	88	23	65											1	0	.10
Fort Chadbourne				56.68	94	24	70											2	0	.15
Fort McKavett				53.66	84	25	59											2	1	.08
Fort Merrill				6 .82	98	29	69											1	0	.13
Fort Brown				66.24	87	42	45											2	0	3.03
Ruggold Barrack				65.54	97	32	65											4	0	1.43
Fort McIntosh				65.29	103	31	72											2	0	.33
Fort Inge				61.22	94	28	66											1	0	.75
Fort Duncan				61.24	97	32	65											0	0	0

MONTH OF MARCH, 1855.

STATIONS.	THERMOMETER.						WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.			RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow	
Fort Clark				61.11	97	30	67											1	0	.45
Fort Davis				56.76	87	21	66											1	0	.19
Fort Bliss				67.50	85	35	50											0	0	0
Fort Thorn				54.86	89	25	64											2	0	.80
Fort Craig				57.20	94	26	68											2	0	.12
Albuquerque				50.45	83	23	60											5	2	1.02
Santa Fé				36.26	54	20	34											1	3	.20
Fort Union				39.84	70	8	62											0	4	.40
Fort Massachusetts				33.20	60	1	61											0	6	1.47
Cantonment Burgwin				39.66	65	7	58											2	8	.19
Fort Defiance				40.28	76	16	60											6	2	3.30
Fort Yuma				69.73	90	45	45											0	0	0
San Diego				58.42	84	36	48											6	0	1.53
Fort Tejon				51.12	72	28	44											7	0	1.58
Fort Miller				59.75	79	35	44											5	0	3.64
San Francisco				56.61	78	43	35											6	0	3.23
Benicia Barracks				56.38	79	36	43											8	0	3.13
Fort Reading				57.31	81	34	47											9	0	5.68
Fort Humboldt				52.59	72	32	40											7	0	6.80
Fort Jones				46.17	76	20	56											15	0	5.21
Fort Dalles				49.33	74	20	54											8	1	1.87
Fort Lane				51.07	81	32	49											7	0	3.26
Fort Vancouver				50.04	82	29	53											6	0	3.99
Fort Orford				51.23	75	33	42											15	0	9.84
Fort Steilacoom				47.75	70	23	47											10	0	7.85

MONTH OF APRIL, 1855.

STATIONS.	THERMOMETER.						WINDS.								WEATHER.		RAIN & SNOW	
	MEAN TEMPERATURE.			RANGE			DIRECTION, NO. OF OBSERVATIONS								DAYS.		DAYS.	
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W	NW	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Independence				44.08	69	19	50											10	2	2.72
Fort Hamilton				47.56	77	25	52											9	0	2.45
Fort Columbus				46.56	73	24	49											7	0	2.40
West Point				46.48	72	22	50											9	0	2.52
Fort Ontario				41 80	72	18	54											5	4	.70
Alleghany Arsenal				51.88	84	18	66											4	0	2.60
Carlisle Barracks				50.95	86	24	62											7	0	1.72
Fort Delaware				51.84	82	26	56											6	0	2.15
Fort McHenry				57.75	89	30	59											4	0	.39
Fort Monroe				59.43	91	40	51											2	0	.45
Fort Moultrie				63.70	86	46	40											2	0	.96
Fort Capron				74.33	90	54	36											7	0	1.14
Key West				75.09	78	63	15											2	0	.24
Fort Dallas				72.82	81	64	17											4	0	3.00
Fort Myers				73.55	87	55	32											1	0	.50
Fort Deynaud				72.50	91	55	36											0	0	0
Fort Brooke				71.01	86	50	36											1	0	.75
Barrancas Barracks				68.75	82	43	39											2	0	1.00
Mount Vernon Arsenal				72.34	95	44	51											2	0	1.52
New Orleans				70.33	84	45	39											1	0	2.00
Baton Rouge				71.35	87	41	46											1	0	.40
Fort Washita				68.41	88	39	49											5	0	3.47
Fort Smith				66.68	92	41	48											7	0	2.99
Fort Gibson				66.41	91	41	50											12	0	3.63
Jefferson Barracks				61.96	93	32	61											4	0	1.71
St. Louis Arsenal				60.10	91	30	61											5	0	2.18
Newport Barracks				57.83	89	28	61											4	0	3.32
Fort Mackinac				38.79	60	6	54											7	2	1.55
Fort Brady				36.22	70	— 2	72											6	0	1.07
Fort Snelling				49.86	88	16	72											3	0	.28
Fort Ripley				46.16	87	10	77											5	0	.36
Fort Ridgely				51.48	90	17	73											3	0	.25
Fort Leavenworth				60.24	96	30	66											2	0	.27
Fort Riley				63.40	95	33	62											4	0	.63
Fort Kearny				54.39	92	23	69											5	0	.68
Fort Laramie				52.94	80	26	54											2	0	.65
Fort Arbuckle				67.43	91	38	53											5	0	2.28
Fort Belknap				70.00	92	51	41											3	0	.30
Fort Chadbourne				68.51	91	34	57											4	0	3.35
Fort McKavett				67.05	84	49	35											3	0	2.29
Fort Merrill				74.50	90	42	48											2	0	.23
Fort Brown				74.98	90	60	30											0	0	0
Ringgold Barracks				76.21	91	41	50											0	0	0
Fort McIntosh				78.08	99	55	44											1	0	.01
Fort Duncan				75.26	97	36	61											2	0	.28
Fort Inge				74.48	95	41	54											2	0	.17

MONTH OF APRIL, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Clark				71.72	92	32	60											2	0	.31
Fort Davis				66.63	96	31	65											8	0	3.58
Fort Bliss				65.50	88	45	43											0	0	0
Fort Fillmore				69.39	89	33	56											4	0	.45
Fort Thorn				65.01	99	33	66											1	0	.20
Fort Craig				63.67	88	35	53											1	0	.10
Albuquerque				59.19	93	28	65											3	0	.74
Santa Fé				50.58	69	26	43											4	0	.85
Cantonment Burgwin				48.42	78	20	58											3	0	.05
Fort Union				50.73	74	24	50											0	0	0
Fort Massachusetts				44.41	71	16	55											0	3	.41
Fort Defiance				45.06	80	22	58											5	0	.51
Fort Yuma				72.96	96	56	40											0	0	0
San Diego				63.76	90	42	48											5	0	1.82
Fort Tejon				48.86	66	32	34											6	0	3.78
Fort Miller				61.22	81	42	39											5	0	4.44
San Francisco				55.98	72	46	26											3	0	3.65
Benicia Barracks				56.91	82	42	40											6	0	3.25
Fort Reading				59.92	86	41	45											12	0	5.17
Fort Humboldt				53.40	68	35	33											9	0	5.40
Fort Jones				49.70	78	28	50											11	0	1.50
Fort Lane				53.41	82	33	49											6	0	.98
Fort Steilacoom				48.39	72	30	42											12	0	7.14
Fort Vancouver				51.46	82	33	49											2	0	2.04
Fort Orford				50.63	62	39	23											10	0	5.17
Fort Dalles				52.02	73	32	41											5	0	.17

MONTH OF MAY, 1855.

STATIONS.	THERMOMETER.						WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.		DIRECTION, NO. OF OBSERVATIONS								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain	Snow.	
Fort Independence				56.17	81	38	43											4	0	1.62
Fort Hamilton				59.28	80	38	42											4	0	3.91
Fort Columbus				58.56	80	38	42											6	0	3.85
West Point				59.96	78	38	40											5	0	4.16
Fort Ontario				51.10	79	37	42											4	0	.72
Allegheny Arsenal				59.66	83	32	51											5	0	2.33
Carlisle Barracks				59.58	83	33	50											4	0	1.81
Fort Delaware				60.95	84	41	43											6	0	2.63
Fort McHenry				64.77	82	45	37											4	0	.91
Fort Monroe				65.72	85	53	32											4	0	2.10
Fort Moultrie				71.82	89	56	33											9	0	6.34
Fort Capron				78.17	94	64	30											18	0	5.54
Fort Dallas				76.90	84	68	16											5	0	*14.69
Key West Barracks				79.13	85	72	13											3	0	3.55
Fort Myers				77.40	93	63	30											4	0	3.00
Fort Deynaud				76.14	92	60	32											12	0	3.56
Fort Brooke				75.93	90	58	32											8	0	1.77
Barrancas Barracks				76.50	88	62	26											5	0	1.92
Mount Vernon Arsenal				78.48	102	57	45											2	0	.20
Baton Rouge				77.79	94	64	30											1	0	.60
New Orleans				79.16	95	65	30											3	0	1.77
Fort Washita				76.38	93	49	44											4	0	2.11
Fort Smith				72.90	93	50	43											11	0	4.92
Fort Gibson				47.17	99	53	46											10	0	5.65
Jefferson Barracks				66.85	92	36	56											12	0	4.70
St. Louis Arsenal				65.56	95	30	65											11	0	8.32
Newport Barracks				65.19	89	39	50											3	0	2.35
Fort Brady				53.12	87	27	60											0	0	0
Fort Mackinac				51.20	76	33	43											2	0	.60
Fort Snelling				61.29	90	32	58											6	0	1.23
Fort Ripley				56.70	85	23	62											2	0	1.68
Fort Ridgely				61.00	84	33	51											6	0	.97
Fort Leavenworth				64.61	90	41	49											7	0	1.98
Fort Riley				71.08	92	45	47											10	0	3.93
Fort Kearny				60.89	84	36	48											12	0	4.91
Fort Laramie				59.82	83	35	48											8	0	2.79
Fort Arbuckle				75.39	100	50	50											10	0	3.13
Fort Belknap				76.80	99	52	47											6	0	3.55
Fort Chadbourne				74.84	102	57	45											4	0	6.33
Fort McKavett				73.61	92	59	33											7	0	2.63
Fort Merrill				81.13	100	67	33											3	0	1.21
Fort Brown				81.77	93	68	25											3	0	1.92
Ringgold Barracks				83.51	100	71	29											5	0	2.40
Fort McIntosh				84.20	105	70	35											7	0	2.88
Fort Duncan				83.80	105	64	41											5	0	1.44
Fort Clark				78.13	101	6	95											5	0	4.29

MONTH OF MAY, 1855.

STATIONS.	THERMOMETER.						WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.		DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Inches & hundr'ds.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Davis				74.76	100	54	46											7	0	1.16
Fort Fillmore				75.43	97	55	42											2	0	.10
Fort Thorn				71.81	101	39	62											0	0	0
Fort Craig				73.29	97	44	53											1	0	.10
Albuquerque				67.30	96	43	53											3	0	.89
Santa Fé				59.61	76	30	46											5	0	.68
Fort Union				57.34	78	32	46											4	0	2.88
Fort Massachusetts				51.19	78	23	55											4	0	.98
Cantonment Burgwin				53.79	81	26	55											6	0	.11
Fort Defiance				49.16	87	21	66											1	2	.10
Fort Yuma				78.41	101	56	45											0	0	0
San Diego				66.06	96	42	54											1	0	.10
Fort Tejon				55.77	90	35	55											4	0	.61
Fort Miller				65.85	103	46	57											4	0	.34
San Francisco				56.01	73	46	27											2	0	1.42
Benicia Barracks				58.29	95	42	53											5	0	2.01
Fort Reading				64.44	95	45	50											12	0	5.43
Fort Humboldt				57.56	73	33	40											4	0	2.80
Fort Jones				54.65	96	30	66											11	0	.87
Fort Dalles				57.66	81	31	50											7	0	1.08
Fort Lane				59.08	84	32	52											7	0	1.33
Fort Vancouver				57.57	82	45	37											5	0	3.77
Fort Orford				52.54	68	38	30											12	0	8.60
Fort Steilacoom				54.79	80	38	42											13	0	5 81

* The original register records the fall of 11.04 inches of rain at Fort Dallas on the 16th and 17th days of this month.

MONTH OF JUNE, 1855.

STATIONS.	THERMOMETER.						WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.		DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence				66.00	82	54	28	2	2	3	19	11	20	15	18	14	16	9	0	3.18
Fort Hamilton				69.92	96	52	44											9	0	5.06
Fort Columbus				68.09	92	54	38											4	0	3.70
West Point				68.10	95	52	43	25	0	0	5	36	2	7	15	14	16	13	0	4.50
Fort Ontario				62.76	86	42	44											11	0	3.60
Allegheny Arsenal				66.06	93	45	48	10	7	6	2	15	23	29	7	11	19	13	0	7.58
Carlisle Barracks				66.90	98	46	52											9	0	5.80
Fort Delaware				69.19	97	54	43											11	0	8.59
Fort McHenry				71.23	97	60	37	0	15	1	10	5	27	17	15	15	15	10	0	2.79
Fort Monroe				74.79	96	60	36	2	3	14	3	7	22	24	13	19	11	8	0	3.80
Fort Moultrie				76.18	86	60	26											6	0	7.58
Fort Capron				81.31	92	72	20											17	0	5.41
Key West Barracks				82.23	87	78	9											9	0	4.47
Fort Myers				80.93	95	69	26											13	0	10.20
Fort Dallas				79.71	84	76	8											5	0	3.20
Fort Doynand				79.03	91	67	24											17	0	8.38
Fort Brooke				80.76	91	63	28											10	0	7.07
Barrancas Barracks				78.65	88	62	26											11	0	4.21
Mount Vernon Arsenal				78.98	93	62	31											11	0	2.22
New Orleans				81.88	92	70	22											10	0	1.75
Baton Rouge				80.46	91	70	21											8	0	4.43
Fort Washita				77.45	99	53	46											6	0	2.07
Fort Smith				75.45	93	53	40											6	0	3.15
Fort Gibson				75.43	95	50	46											9	0	4.85
Jefferson Barracks				75.46	81	51	30											9	0	2.71
St. Louis Arsenal				73.02	97	61	36	6	1	1	6	23	19	11	23	21	9	9	0	4.25
Newport Barracks				68.06	84	49	35	1	0	0	0	0	32	37	12	19	11	9	0	9.30
Fort Mackinac				56.18	81	35	46											7	0	1.76
Fort Brady				57.83	93	35	58											5	0	1.10
Fort Snelling				66.15	95	40	55											6	0	2.38
Fort Ripley				62.90	92	30	62											11	0	4.88
Fort Ridgeley				65.64	92	39	53											7	0	3.21
Fort Leavenworth				69.78	93	43	50											6	0	1.09
Fort Riley				73.75	101	47	54											8	0	5.06
Fort Kearny				69.44	96	44	52											10	0	2.20
Fort Laramie				69.44	94	48	46											5	0	3.25
Fort Arbuckle				77.61	100	64	36											6	0	3.38
Fort Belknap				79.12	100	58	42											4	0	3.15
Fort Chadbourne				77.06	98	56	42											5	0	3.31
Fort McKavett				73.84	87	55	32											5	0	1.19
Fort Merrill				81.00	96	64	32											7	0	8.75
Fort Brown				81.05	93	70	23											13	0	10.47
Fort McIntosh				82.73	100	65	35											10	0	5.18
Fort Duncan				82.18	99	64	35											5	0	4.50
Fort Clark				80.45	97	64	33											4	0	4.77
Fort Davis				77.28	99	51	48											3	0	.43

MONTH OF JUNE, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow.	
Fort Bliss				83.00	104	65	39											1	0	.05
Fort Fillmore				83.19	102	63	39											2	0	.07
Fort Thorn				80.90	102	59	43											0	0	0
Fort Craig				79.33	106	58	48											2	0	.21
Santa Fé				68.66	89	48	41											3	0	1.77
Fort Union				61.56	83	35	48											1	0	2.12
Cantonment Burgwin				62.37	91	33	58											5	0	.20
Fort Massachusetts				59.01	88	32	56											4	0	.86
Fort Defiance				68.61	94	34	60											2	0	.43
Fort Yuma				90.25	110	68	42											0	0	0
San Diego				72.40	90	60	30											0	0	0
Fort Tejon				70.44	96	46	50											0	0	0
Fort Miller				84.23	108	52	56											0	0	0
San Francisco				56.35	70	51	19											0	0	0
Benicia Barracks				70.66	95	54	41											0	0	0
Fort Reading				81.65	101	64	37											1	0	.20
Fort Humboldt				59.19	75	49	26											3	0	1.60
Fort Jones				67.71	98	38	60											1	0	.08
Fort Orford				57.58	70	48	22											3	0	1.80
Fort Lane				70.58	98	45	53											2	0	1.03
Fort Vancouver				64.97	87	54	33											3	0	2.43
Fort Dalles				71.19	104	50	54											5	0	.24
Fort Steilacoom				59.11	86	48	38											3	0	1.40

MONTH OF JULY, 1855.

STATIONS.	THERMOMETER							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE			DIRECTION, NO. OF OBSERVATIONS								DAYS		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair	Cl'dy.	Rain.	Snow.	
Fort Independence	70.93	79.64	73.33	74.64	89	62	27	8	14	17	7	11	26	1	6	17	14	9	0	3.57
Fort Hamilton	73.38	82.48	74.25	76.70	96	62	34	3	20	0	12	0	10	0	18	5	26	8	0	2.34
Fort Columbus				74.55	92	60	32									20	11	8	0	6.00
West Point	69.90	77.12	72.80	73.27	88	60	28	28	0	0	5	45	3	1	11	12	19	15	0	6.26
Alleghany Arsenal	70.34	81.45	70.80	74.19	92	61	31	14	5	4	11	16	12	23	8	11	20	18	0	5.57
Fort Ontario				68.09	88	54	34									5	26	12	0	5.20
Carlisle Barracks	70.12	82.70	74.90	75.90	96	60	36	1	0	2	0	2	1	4	4	13	18	10	0	6.07
Fort Delaware				77.80	97	60	37									23	8	8	0	4.79
Fort McHenry	74.19	84.87	75.09	78.05	96	65	31	1	12	8	19	0	33	7	13	15	16	12	0	2.62
Fort Monroe	78.35	88.70	79.87	82.30	97	70	27	12	1	3	12	0	39	14	10	20	11	5	0	1.65
Fort Moultrie	79.67	85.87	81.22	82.25	92	75	17	0	4	2	6	32	27	18	4	27	4	11	0	3.59
Key West Barracks	81.41	83.80	82.00	82.40	87	76	11	2	0	14	49	26	2	0	0	31	0	11	0	4.59
Fort Myers				80.23	93	72	21									17	14	17	0	6.80
Fort Dallas				81.94	88	74	14									23	8	7	0	11.32
Fort Desnaud	75.22	83.64	76.45	78.43	90	71	19	18	5	49	2	6	1	11	1	8	23	21	0	7.97
Barrancas Barracks	78.77	84.90	80.09	81.25	90	74	16	13	3	3	12	15	22	11	14	6	25	20	0	18.61
Mount Vernon Arsenal				78.84	93	70	23									20	11	18	0	9.85
New Orleans				82.78	93	76	17									22	9	16	0	7.24
Baton Rouge	77.58	86.61	78.93	81.04	94	73	21	3	0	3	15	20	14	19	19	9	22	11	0	3.61
Fort Washita				82.74	100	62	38									23	8	6	0	2.39
Fort Smith				81.85	98	65	23									17	14	5	0	1.56
Fort Gibson	78.74	93.58	80.32	84.21	99	68	31	2	0	7	16	68	0	0	0	16	15	6	0	.74
Jefferson Barracks	71.61	86.45	77.74	80.26	96	69	27	0	0	0	6	10	18	17	1	15	16	12	0	7.78
St. Louis Arsenal	74.22	87.32	76.29	79.27	96	68	28	7	2	6	6	33	19	1	19	17	14	11	0	6.05
Newport Barracks	73.90	85.35	76.00	78.41	94	62	32	0	0	3	3	12	31	44	0	15	16	3	0	2.55
Fort Mackinac				64.20	82	50	32									23	8	11	0	7.10
Fort Snelling	66.38	81.80	71.77	73.31	96	51	45	15	3	4	17	31	12	6	5	22	9	11	0	1.32
Fort Ripley	64.22	78.83	63.87	68.74	93	54	39	12	9	2	35	2	5	10	8	17	14	9	0	4.03
Fort Ridgely				70.99	90	50	40									18	13	9	0	2.41
Fort Leavenworth				77.12	98	60	38									27	4	6	0	1.70
Fort Riley	75.74	91.09	78.09	81.64	106	62	44	6	16	4	21	20	16	5	5	16	15	8	0	2.15
Fort Kearny				76.12	97	53	44									22	9	7	0	3.90
Fort Laramie				72.46	92	54	38									27	4	10	0	1.45
Fort Pierre				77.15	101	63	38											2	0	.38
Fort Arbuckle	78.64	96.32	81.64	85.67	104	70	34	5	4	2	10	62	8	1	1	28	3	3	0	3.50
Fort Belknap	77.96	96.90	81.54	85.46	107	70	37	0	2	11	26	26	22	3	3	17	14	5	0	.53
Fort McKavett	72.19	84.25	74.77	77.07	92	67	25	1	3	8	43	33	3	2	0	20	11	6	0	2.08
Fort Merrill	78.09	90.06	76.64	81.59	97	70	27	2	1	4	35	46	4	0	1	19	12	10	0	4.43
Fort Brown	82.09	87.74	79.39	83.07	91	75	16	1	11	5	64	6	2	3	1	20	11	12	0	7.58
Ringgold Barracks				82.15	94	71	23									17	14	11	0	5.38
Fort McIntosh	79.00	92.38	82.80	84.72	101	72	29	4	3	16	15	55	0	0	0	13	18	8	0	3.50
Fort Duncan	77.48	91.93	80.32	83.31	98	73	25	0	1	0	56	0	0	1	0	29	2	10	0	3.84
Fort Clark	75.29	88.74	77.68	80.57	94	72	22	2	2	36	32	21	0	0	0	23	8	6	0	.57
Fort Davis	70.61	82.90	72.87	75.46	101	62	39									18	13	18	0	4.21
Fort Bliss				83.05	104	68	36									24	7	6	0	.16
Fort Fillmore				83.44	106	69	37									27	4	7	0	2.63

MONTH OF JULY, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain	Snow	
Fort Thorn				81.33	105	65	40									20	2	5	0	3.64
Fort Craig				79.69	108	60	48									0	0	5	0	2.31
Santa Fe				73.00	99	55	44									15	16	7	0	2.09
Fort Union				65.02	87	46	41									21	10	19	0	4.37
Cantonment Burgwin				66.49	94	50	44									25	6	9	0	0.37
Fort Massachusetts				60.56	83	35	48									23	8	3	0	2.60
Fort Defiance				67.16	99	36	63									29	2	4	0	1.54
Fort Yuma				93.86	116	74	42									30	1	1	0	.10
San Diego				75.57	98	60	38									24	7	0	0	0
Fort Miller				87.60	110	66	44									31	0	0	0	0
San Francisco				58.77	89	51	38									28	3	0	0	0
Fort Humboldt	55.74	69.26	56.55	58.85	70	46	24	12	0	0	0	10	7	4	22	13	18	0	0	0

EXPLANATORY NOTE.

Observations of winds were made at 7, A. M., 2, P. M., and 9, P. M., daily. The *direction* and *force* were observed and registered together; but the direction only is given in this series of tables. The number of observations recorded under any point of the compass, divided by 3, gives the number of days from that point; and one third of the whole number of observations should be the number of days in the month. This, however, will not always prove to be the case, because many observers, instead of recording the direction of the vane in *calms*, indicate that condition by a cipher. Thus, in the record for Fort Humboldt, as printed in the above table, the total "number of observations" is 55, but the original register shows 38 observations recorded in cipher. ($55 + 38 = 93 \div 3 = 31$, the number of days in July.)

It was found impracticable to add a column for "calms" to the present series of tables without changing the mode of printing and increasing the size of the report. R. H. C.

MONTH OF AUGUST, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence	64.09	77.42	67.71	69.78	83	51	32	14	8	6	26	13	17	4	5	22	9	6	0	1.68
Fort Hamilton	70.19	78.96	71.45	73.53	87	58	29	4	13	3	21	3	30	2	17	8	23	4	0	2.99
Fort Columbus	.....	.....	.....	70.44	84	55	29	....	....	....	....	....	....	....	....	.....	.....	4	0	2.55
West Point	69.32	75.03	71.51	71.95	82	62	20	39	0	2	4	42	0	1	5	20	11	11	0	3.10
Fort Ontario	.....	.....	.....	65.86	84	48	36	....	....	....	....	....	....	....	....	.....	.....	3	0	1.65
Alleghany Arsenal	65.13	78.25	67.00	70.13	84	52	32	22	11	6	14	9	5	20	6	14	17	12	0	3.57
Carlisle Barracks	66.87	79.67	71.29	72.61	90	54	36	4	0	0	10	1	12	1	11	8	23	9	0	3.38
Fort Delaware	.....	.....	.....	73.94	86	57	29	....	....	....	....	....	....	....	....	.....	.....	7	0	2.63
Fort McHenry	71.00	83.77	72.90	75.89	93	60	33	1	18	1	11	1	21	1	9	20	11	9	0	2.50
Fort Monroe	.....	.....	.....	79.44	94	72	22	1	35	22	5	0	22	1	8	18	13	4	0	1.80
Fort Moultrie	82.26	62.20	81.03	83.16	94	69	25	4	8	14	0	29	13	24	1	19	12	11	0	4.62
Fort Capron	82.22	89.40	81.70	84.44	93	74	19	2	3	45	30	0	0	10	1	21	10	9	0	9.24
Key West Barracks	81.80	85.61	82.93	83.44	89	78	11	1	6	7	58	17	4	0	0	15	16	11	0	6.31
Fort Myers	78.00	89.03	80.19	82.40	95	73	22	7	7	16	12	46	2	0	3	15	16	17	0	11.35
Fort Dallas	80.77	85.22	81.38	82.46	88	73	15	1	15	35	22	13	0	0	0	18	13	1	0	4.70
Fort Deynaud	76.61	84.77	78.64	80.00	91	72	19	14	5	44	4	13	2	7	4	19	12	20	0	14.27
Fort Brooke	77.77	86.80	78.29	80.95	95	74	21	2	8	24	14	12	14	11	8	22	9	10	0	5.64
Barrancas Barracks	78.70	87.13	80.57	82.13	93	74	19	25	6	1	7	16	17	14	7	10	21	10	0	16.14
Mount Vernon Arsenal	75.64	85.87	77.83	79.78	92	71	21	8	11	10	35	13	8	1	5	12	19	11	0	12.59
New Orleans	81.25	88.32	82.84	84.80	93	78	15	8	11	24	27	8	10	2	1	19	12	13	0	4.12
Baton Rouge	76.35	85.74	78.29	80.12	94	73	21	2	5	4	27	13	17	7	18	15	16	16	0	6.64
Fort Washita	75.54	88.38	79.38	81.10	102	70	32	8	8	9	23	26	9	0	3	10	21	11	0	3.56
Fort Smith	73.03	87.84	79.61	80.16	97	58	39	1	17	36	3	24	12	0	0	6	25	13	0	5.15
Fort Gibson	75.32	88.84	75.51	80.55	101	63	38	12	4	27	9	41	0	0	0	18	13	8	0	5.34
Jefferson Barracks	71.19	82.35	73.59	75.70	92	54	38	1	2	7	5	8	7	12	3	12	19	12	0	3.48
St. Louis Arsenal	68.87	81.26	71.65	73.92	95	55	40	13	7	4	14	21	16	1	14	18	13	7	0	4.84
Newport Barracks	71.03	84.00	75.35	76.79	93	60	33	9	0	3	0	17	13	47	0	15	16	11	0	5.00
Fort Mackinac	.....	.....	.....	62.82	81	46	35	....	....	....	....	....	....	....	....	.....	.....	10	0	5.15
Fort Brady	56.51	69.80	53.77	60.02	96	40	56	11	5	22	4	26	4	19	2	18	13	10	0	2.59
Fort Snelling	69.19	73.29	65.48	66.65	81	54	27	18	4	7	15	24	6	4	15	16	15	9	0	4.41
Fort Ripley	58.13	71.03	60.29	63.15	83	42	41	13	5	3	20	12	9	9	10	13	18	8	0	3.58
Fort Ridgely	64.61	72.87	64.67	67.38	85	52	33	9	10	4	21	17	5	5	16	21	10	11	0	6.34
Fort Leavenworth	67.87	81.09	74.00	74.32	97	56	41	4	3	37	13	18	2	16	0	14	17	8	0	10.18
Fort Riley	70.00	80.42	72.93	74.45	99	61	38	1	3	3	31	11	31	9	4	15	16	10	0	4.30
Fort Kearny	68.66	82.93	74.26	75.28	96	60	36	22	7	3	7	23	17	4	10	26	5	7	0	4.69
Fort Laramie	67.06	80.35	71.38	72.93	89	54	35	1	1	54	0	0	0	36	1	20	11	10	0	2.93
Fort Pierre	62.67	75.48	67.48	68.53	101	51	50	1	14	12	27	4	7	5	21	23	8	4	0	3.03
Fort Arbuckle	75.64	92.16	78.03	81.94	107	64	43	12	6	16	16	35	5	0	3	22	9	13	0	6.76
Fort Belknap	79.06	91.83	81.25	85.04	110	71	39	2	7	15	42	25	1	1	0	12	19	6	0	2.12
Fort Chadbourne	73.67	89.42	77.51	80.20	110	66	44	7	26	14	35	11	0	0	0	16	15	6	0	2.40
Fort McKavett	72.03	84.68	75.83	77.51	94	64	30	10	15	13	29	20	0	5	1	20	11	5	0	2.60
Fort Merrill	79.45	92.00	78.42	83.29	99	71	28	0	1	8	58	24	1	1	0	20	11	10	0	6.29
Corpus Christi	82.19	85.71	83.55	83.81	93	76	17	3	7	6	53	9	7	2	6	21	10	10	0	5.09
Fort Brown	84.64	89.77	80.16	84.85	94	77	17	4	9	8	40	32	0	0	0	15	16	19	0	9.52
Ringgold Barracks	.....	.....	.....	82.23	96	70	26	....	....	....	....	....	....	....	....	.....	.....	7	0	6.81
Fort McIntosh	78.35	94.19	82.93	85.15	103	72	31	8	3	9	19	52	0	2	0	14	17	9	0	3.89

MONTH OF AUGUST, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.			RANGE.				DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Duncan	78.93	93.41	79.22	83.85	104	69	35	0	5	0	46	0	0	3	0	25	6	7	0	2.97
Fort Clark	76.96	89.93	79.45	82.11	100	71	29	7	5	21	14	45	0	1	0	20	11	9	0	3.76
Fort Davis	68.93	87.45	72.90	76.42	95	63	32	0	0	0	0	19	11	5	6	22	9	8	0	3.33
Fort Bliss	74.43	90.35	77.00	80.59	99	68	31	4	13	9	15	9	6	1	3	20	11	5	0	1.12
Fort Fillmore	78.03	70.16	79.38	82.52	96	70	26	0	0	8	15	43	13	13	0	23	8	1	0	1.29
Fort Thorn	.....	.....	.....	78.30	98	59	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	0	1.21
Fort Craig	70.20	97.58	72.67	80.15	105	58	47	20	1	9	2	30	4	23	4	25	6	5	0	.57
Fort Stanton	65.84	85.35	65.51	70.90	98	51	47	1	8	4	12	6	5	0	6	9	22	0	0	0
Santa Fé	64.68	77.35	68.00	70.01	91	52	39	8	14	9	8	9	11	15	19	17	14	8	0	7.89
Fort Union	60.35	73.03	61.46	64.94	79	52	27	21	5	2	4	27	5	5	17	16	15	9	0	1.46
Cantonment Burgwin	60.42	75.77	59.16	65.11	88	50	38	5	3	1	21	44	10	7	2	8	23	14	0	2.39
Fort Yuma	.....	.....	.....	92.42	109	77	32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0	0	0
San Diego	68.89	86.74	70.06	75.22	94	60	34	0	8	14	12	13	25	18	3	22	9	0	0	0
Fort Tejon	68.61	87.00	72.13	75.91	93	63	40	0	2	0	1	0	21	1	38	29	2	0	0	0
Fort Miller	80.00	102.90	89.81	90.90	108	90	18	9	7	14	6	14	14	17	12	25	6	0	0	0
San Francisco	58.39	73.00	54.77	62.02	76	51	25	0	0	0	0	0	70	22	1	14	17	0	0	0
Benicia Barracks	59.96	79.63	60.48	66.69	97	55	42	0	0	0	0	0	8	85	0	24	7	0	0	0
Fort Reading	75.16	94.70	81.76	83.87	103	70	33	6	7	2	9	53	9	1	3	26	5	0	0	0
Fort Humboldt	55.74	64.26	56.55	58.85	70	46	24	12	0	0	0	10	7	4	22	13	18	0	0	0
Fort Jones	56.72	88.78	72.34	72.61	98	46	52	23	4	1	2	18	7	5	9	21	10	0	0	0
Fort Orford	56.48	66.29	55.97	59.58	72	50	22	5	0	0	8	18	0	0	62	20	11	1	0	.10
Fort Lane	.....	.....	.....	73.09	98	45	53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Vancouver	63.35	74.93	64.84	67.70	85	59	26	0	1	0	1	0	1	1	4	30	1	0	0	0
Fort Dalles	60.77	93.60	73.66	76.01	104	50	54	0	6	0	31	3	53	0	0	29	2	0	0	0
Fort Steilacoom	58.87	76.22	60.80	65.29	84	13	71	2	0	0	0	11	5	33	6	22	9	1	0	.06

MONTH OF SEPTEMBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy	Rain	Snow	Amount in Inches.
Fort Independence	68.30	73.23	60.90	64.14	89	43	40	23	4	6	13	7	15	12	10	27	9	8	0	1.52
Fort Hamilton	64.50	75.06	66.83	68.86	88	49	39	4	27	0	2	2	29	2	24	17	13	4	0	.95
Fort Columbus	.....	.....	.....	65.43	84	46	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	0	1.30
West Point	61.89	69.76	64.60	65.38	87	57	30	40	1	1	1	34	1	1	8	18	12	8	0	.97
Fort Ontario	56.66	67.76	58.36	60.92	86	39	47	9	3	4	0	23	12	37	1	9	21	6	0	2.92
Allegany Arsenal	61.76	73.93	64.40	66.66	85	42	43	12	21	9	11	17	7	5	8	8	22	16	0	4.79
Carlisle Barracks	61.96	75.60	66.70	68.08	91	47	44	6	1	0	8	2	17	2	13	14	16	10	0	5.94
Fort Delaware	.....	.....	.....	68.33	86	48	38	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	0	3.70
Fort McHenry	65.26	76.70	67.66	69.87	92	49	43	1	30	5	15	2	21	1	15	19	11	7	0	2.30
Fort Monroe	73.86	78.06	74.56	75.49	90	64	26	8	44	12	6	11	5	2	2	19	11	7	0	3.30
Fort Moultrie	76.20	83.17	79.53	79.63	93	68	25	10	19	8	6	25	8	8	4	17	13	9	0	3.74
Fort Capron	80.16	89.46	79.63	83.08	93	76	17	1	20	30	14	2	0	3	0	20	10	15	0	4.48
Key West Barracks	81.86	84.63	82.32	82.93	87	77	10	1	2	14	32	12	0	8	1	15	15	12	0	7.95
Fort Myers	77.80	87.86	79.33	81.33	93	73	20	28	19	11	6	25	1	0	0	6	24	21	0	5.35
Fort Dallas	79.26	85.10	80.93	81.41	89	72	17	0	47	27	0	8	6	2	0	17	13	6	0	5.70
Fort Desmaud	75.67	86.17	78.60	80.14	89	71	18	30	10	36	4	6	1	3	0	19	11	21	0	3.36
Fort Brooke	76.20	86.50	78.56	80.42	90	72	18	1	20	22	18	13	8	6	2	23	7	11	0	1.45
Barrancas Barracks	77.33	85.70	79.33	80.78	92	72	20	28	7	6	26	7	9	1	6	11	19	11	0	6.45
Mount Vernon Arsenal	73.83	84.23	77.00	78.35	92	65	27	6	20	11	11	4	0	2	6	8	22	17	0	10.03
New Orleans	79.70	85.80	80.93	82.14	93	76	17	11	23	20	21	4	7	2	2	18	12	15	0	4.36
Baton Rouge	74.66	84.26	77.16	78.69	90	66	24	3	8	21	25	3	9	5	14	14	16	8	0	4.49
Fort Washita	74.29	87.16	75.96	79.07	95	56	39	5	4	5	18	30	20	0	1	13	17	7	0	1.01
Fort Smith	73.70	82.50	74.83	77.01	90	50	40	0	9	19	13	0	24	16	7	7	23	9	0	3.24
Fort Gibson	74.93	84.66	76.06	78.55	94	57	37	1	4	23	19	31	1	1	0	21	9	6	0	4.13
Jefferson Barracks	69.73	81.56	71.80	74.03	89	58	31	8	1	5	8	10	3	8	1	15	15	8	0	4.09
St. Louis Arsenal	69.20	79.33	69.47	72.33	89	50	39	15	2	3	14	30	14	6	6	19	11	4	0	3.12
Newport Barracks	69.33	78.66	71.83	73.27	88	50	38	16	1	0	0	32	11	25	0	13	17	11	0	8.50
Fort Mackinac	55.60	63.60	57.06	58.75	76	43	33	3	8	27	14	14	6	11	7	18	12	8	0	3.62
Fort Brady	58.40	68.26	62.00	59.55	84	37	47	14	3	11	15	31	8	3	0	20	10	11	0	3.49
Fort Snelling	56.76	67.66	59.26	61.18	85	42	43	8	7	9	27	18	4	6	11	12	18	15	0	6.26
Fort Ripley	51.53	64.66	54.73	56.60	88	34	54	7	14	3	26	8	1	10	7	12	18	13	0	4.95
Fort Ridgely	58.73	67.56	60.20	62.16	85	40	45	4	12	4	34	8	2	4	13	13	17	15	0	5.10
Fort Leavenworth	66.83	78.80	72.00	72.54	91	49	42	0	0	8	13	25	10	29	5	19	11	11	0	4.43
Fort Riley	70.86	82.56	73.60	75.46	95	51	44	12	3	10	16	35	8	3	3	12	18	15	0	6.52
Fort Laramie	62.53	77.26	67.23	69.00	88	51	37	2	0	31	3	6	7	38	3	18	12	9	0	3.39
Fort Pierre	58.26	73.16	60.86	64.10	99	46	53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	0	1.88
Fort Arbuckle	72.43	89.66	75.60	79.23	97	46	51	1	2	18	19	42	1	2	2	28	2	6	6	1.73
Fort Belknap	84.60	92.46	79.96	85.67	96	69	27	1	1	5	36	11	14	0	2	22	8	0	0	0
Fort Chadbourne	72.86	89.10	75.56	79.17	96	58	38	6	1	1	47	33	2	0	0	16	14	3	1	1.30
Fort McKavett	71.50	85.26	72.53	76.82	90	58	32	0	7	12	36	34	0	0	1	19	11	4	0	.07
Fort Merrill	76.86	90.24	77.23	81.44	94	71	23	1	3	19	35	28	1	1	2	22	8	10	0	3.18
Corpus Christi	78.86	85.03	83.36	82.41	92	77	15	3	15	9	53	7	2	1	0	24	6	10	0	4.78
Fort Brown	80.66	88.56	79.30	82.85	92	76	16	1	25	9	40	7	7	0	1	17	13	19	0	9.44
Ringgold Barracks	.....	.....	.....	79.83	92	71	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	0	1.56
Fort McIntosh	77.63	92.83	81.00	83.82	100	74	26	3	9	30	17	51	0	0	0	14	16	10	0	2.95
Fort Duncan	76.43	83.46	78.86	79.58	98	66	32	0	0	2	62	0	0	0	2	14	16	8	0	2.16

MONTH OF SEPTEMBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair	Cldy	Rain	Snow	
Fort Clark	75.36	85.43	76.40	79.39	91	73	18	3	2	29	16	49	0	0	0	17	13	8	0	4.40
Fort Davis	67.86	82.00	70.20	73.35	94	58	36	6	0	0	2	7	12	12	6	18	12	10	0	5.59
Fort Bliss	71.00	86.00	74.00	77.00	95	67	28	2	25	10	19	6	14	0	12	18	12	7	0	7.22
Fort Fillmore	72.13	84.96	74.60	77.23	97	63	34	1	2	6	3	56	1	20	1	17	13	7	0	2.31
Fort Thorn	65.63	86.13	68.16	73.30	93	58	35	10	9	28	4	10	5	4	20	12	18	11	0	4.97
Fort Craig	64.20	90.73	68.77	74.56	103	60	43	24	6	11	2	30	3	14	0	16	14	6	0	2.98
Fort Defiance				61.09	89	39	11											10	0	2.86
Santa Fe	58.76	71.90	60.00	63.55	82	50	32	0	13	15	11	5	21	12	10	18	12	9	0	5.28
Fort Massachusetts	47.83	66.76	47.30	53.96	78	32	46	25	2	1	3	18	13	16	7	16	14	10	0	3.33
Fort Union	55.13	67.51	57.23	60.06	74	49	25	34	2	2	4	21	8	6	6	15	15	13	0	3.83
Cantonment Burgwin	53.43	69.73	53.70	58.95	80	42	38	13	3	2	12	44	1	1	0	8	22	16	0	1.43
San Diego	61.83	82.13	65.13	69.69	90	50	40	2	14	16	5	3	24	15	11	16	14	0	0	0
Fort Tejon	55.06	78.00	60.04	64.46	88	48	40	0	8	0	22	0	2	5	25	28	2	2	0	.29
Fort Miller	68.23	92.26	76.25	79.91	98	57	41	8	4	8	7	16	15	22	10	23	7	0	0	0
San Francisco	57.43	70.66	56.88	61.65	84	52	32	0	0	1	0	0	44	15	0	17	13	0	0	0
Benicia Barracks	59.90	73.40	64.50	65.93	92	54	38	0	1	4	0	3	21	61	0	21	6	0	0	0
Fort Reading	66.53	87.16	72.86	75.51	92	56	36	25	17	3	3	39	4	2	7	25	5	3	0	.60
Fort Humboldt	54.86	65.73	58.83	59.80	73	49	24	15	4	0	1	6	8	3	10	17	13	4	0	1.36
Fort Jones	30.33	49.50	32.46	37.43	56	18	38	28	15	4	10	19	10	1	3	14	17	7	2	1.77
Fort Orford	54.83	65.33	56.13	58.76	73	49	24	16	6	1	2	20	1	1	33	20	10	7	0	4.99
Fort Vancouver	58.86	68.62	57.20	61.56	73	53	20											1	0	.46
Fort Dalles	53.10	82.40	58 39	64.63	94	47	47	0	30	0	5	6	36	13	0	22	8	5	0	.69

* In the original register, the measurements of rain appear to be incorrectly expressed, the decimal points being misplaced. As recorded, they would make the amount of rain 17.17 inches, instead of 7.22 inches, as given in the above table. The latter is believed to be the correct reading.

R. H. C.

MONTH OF OCTOBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Independence	49.77	58.70	50.83	53.10	74	35	39	8	6	8	9	11	15	16	20	16	15	19	0	5.19
Fort Hamilton	54.80	60.29	53.96	56.35	75	40	35	16	10	0	3	0	19	3	12	21	10	9	0	4.70
Fort Columbus	50.21	58.03	53.61	53.95	71	30	41	3	7	3	7	3	25	14	31	16	15	9	0	5.50
West Point	51.00	56.19	52.74	53.31	71	40	31	34	1	0	1	36	5	7	9	17	14	14	0	10.25
Fort Ontario	44.90	52.12	47.22	48.11	71	34	37	6	2	4	22	33	5	18	3	9	22	17	0	3.40
Allegheny Arsenal	44.03	55.83	46.51	48.32	72	32	40	14	0	3	6	19	25	21	5	11	20	16	1	1.54
Fort Delaware	49.85	58.87	52.32	53.68	70	32	38	10	9	1	10	6	20	12	25	21	10	12	0	2.79
Fort McHenry	49.64	59.67	53.54	54.28	76	30	46	17	8	4	9	8	9	21	17	17	14	7	0	3.70
Fort Moultrie	59.61	72.64	65.87	66.04	84	40	44	17	15	7	4	6	14	12	18	23	8	8	0	1.51
Fort Dallas	71.70	82.93	74.74	76.45	87	58	29	11	23	13	18	6	11	2	9	21	10	5	0	7.90
Fort Capron	68.67	81.03	73.25	74.31	88	46	42	16	32	12	3	9	3	10	8	26	5	4	0	2.38
Key West Barracks	74.48	81.54	78.70	79.24	88	67	21	7	35	10	19	12	4	3	4	15	16	11	0	7.97
Fort Myers	68.93	82.16	72.18	74.52	89	52	37	18	7	2	7	25	1	0	3	19	12	7	0	2.95
Fort Deynaud	66.42	79.16	70.29	71.95	90	51	39	38	9	12	2	11	6	10	5	19	12	12	0	2.59
Fort Brooke	65.90	76.25	67.93	70.02	83	45	38	7	29	21	5	0	9	15	7	24	7	5	0	1.10
Barrancas Barracks	59.19	72.38	63.74	65.10	90	44	46	47	3	0	6	10	7	2	18	15	16	3	0	2.14
Mount Vernon Arsenal	56.41	72.80	62.58	63.93	96	35	61	28	11	13	1	4	2	10	24	15	16	3	0	2.17
New Orleans	62.61	71.19	67.51	67.10	78	42	36	26	20	20	4	4	4	0	15	20	11	6	0	2.10
Baton Rouge	56.19	71.45	62.12	63.25	80	45	35	9	17	23	25	5	4	5	5	19	12	5	0	5.13
Fort Washita	53.16	71.06	59.67	61.29	85	29	56	7	9	4	9	23	15	7	4	16	15	5	0	.70
Fort Smith	51.06	69.12	54.03	58.07	82	31	51	6	25	10	18	3	24	2	11	14	17	3	1	1.47
Fort Gibson	49.96	69.12	56.64	58.57	81	29	52	25	2	5	6	47	4	3	1	21	10	4	0	2.35
Jefferson Barracks	48.90	61.70	51.83	54.14	79	28	51	12	6	0	1	4	2	11	9	19	12	6	1	4.61
St. Louis Arsenal	45.64	60.77	50.70	52.34	74	26	48	15	8	2	2	22	21	1	22	22	9	5	1	1.25
Newport Barracks	48.25	60.74	53.35	54.11	76	33	43	13	0	9	0	14	12	39	6	17	14	3	1	1.37
Fort Mackinac	40.06	49.48	41.38	43.64	58	28	30	15	12	13	4	14	7	14	14	10	21	1	6	.89
Fort Brady	39.70	47.03	38.51	41.74	63	29	34	27	11	8	5	22	7	5	8	15	16	12	5	.80
Fort Snelling	38.19	56.03	45.22	46.48	79	23	56	18	3	2	16	15	16	8	15	20	11	1	3	.90
Fort Ripley	32.41	51.12	38.12	40.55	76	18	58	8	9	0	15	11	8	22	11	20	11	0	2	.06
Fort Ridgely	37.09	53.51	40.61	43.74	75	19	56	1	5	1	19	6	8	6	36	24	7	3	5	.80
Fort Leavenworth	46.61	63.39	52.35	54.11	78	26	52	19	1	3	6	32	9	6	14	23	8	3	2	.38
Fort Riley	47.45	65.80	55.15	56.23	84	26	58	27	9	2	5	30	3	14	3	19	12	2	0	0
Fort Kearny	46.63	64.23	52.16	54.34	84	8	76	27	1	0	0	7	5	11	36	28	3	1	0	.18
Fort Laramie	48.03	66.06	51.03	55.04	82	33	49	2	2	27	0	0	6	45	11	21	10	2	1	.62
Fort Pierre	40.58	59.64	44.90	48.38	86	21	65	4	4	2	24	8	11	9	29	18	13	2	0	.42
Fort Arbuckle	52.64	74.29	60.03	62.32	86	26	60	27	0	3	4	49	0	5	5	28	3	2	0	.57
Fort Belknap	61.77	70.41	62.35	64.84	79	39	40	9	7	1	27	36	11	0	2	19	12	4	0	4.00
Fort Chadbourne	54.58	73.19	58.80	62.19	86	32	54	16	16	0	16	31	11	3	0	21	10	6	0	1.26
Fort McKavett	58.64	73.54	59.29	63.82	88	45	43	11	25	6	13	30	6	2	0	24	7	11	0	3.43
Fort Merrill	61.87	80.45	66.64	69.65	92	43	49	12	9	12	25	33	0	2	0	19	12	3	0	.59
Fort Brown	66.83	80.96	69.16	72.32	89	52	37	13	8	4	21	23	0	3	18	11	20	9	0	5.79
Ringgold Barracks				71.77	84	49	35											5	0	2.50
Fort McIntosh	63.74	81.51	70.93	73.06	93	46	47	16	13	9	13	29	5	2	6	13	18	5	0	2.36
Fort Duncan	60.63	80.21	66.07	68.97	97	42	55	0	0	0	45	0	0	2	10	16	15	5	0	.57
Fort Clark	61.74	76.11	66.61	68.25	89	44	45	20	6	25	6	32	0	1	3	20	11	4	0	1.03
Fort Davis	54.00	73.93	64.70	64.21	84	41	43	13	3	3	1	8	4	3	5	23	8	2	0	.58

MONTH OF OCTOBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow.	
Fort Bliss	64.22	80.74	62.58	67.18	85	59	26	15	33	11	15	3	4	4	8	23	8	1	0	1.05
Fort Fillmore	55.48	76.96	64.35	65.59	81	50	31	2	2	19	0	55	0	13	0	28	3	1	0	.09
Fort Thorn	54.51	74.90	58.32	62.57	81	50	31	4	10	1	5	0	5	29	39	23	8	1	0	.39
Fort Craig	49.62	81.48	56.97	62.69	88	41	47	25	6	14	0	22	1	22	1	30	1	1	0	.07
Fort Stanton	45.46	77.45	49.73	57.54	87	40	47	0	0	5	16	1	25	5	11	13	18	3	0	0
Santa Fé	44.32	66.61	53.35	54.76	75	38	37	11	11	15	15	4	16	14	7	23	8	0	0	0
Fort Union	41.29	61.45	43.93	48.89	68	27	41	50	2	0	7	25	1	0	6	24	7	0	2	.40
Fort Bliss	64.22	80.74	62.58	69.18	85	59	26	15	33	11	15	3	4	4	8	23	8	1	0	1.05
Fort Massachusetts	28.61	56.77	34.83	40.07	61	24	37	52	5	4	0	10	20	1	1	27	4	0	0	0
Fort Defiance	36.87	70.06	41.58	49.50	79	32	47	31	10	0	4	29	5	2	7	27	4	0	0	0
Fort Yuma	72.09	89.80	80.48	80.79	98	64	34	0	33	9	20	9	18	3	1	27	4	2	0	.22
San Diego	59.64	78.77	64.22	67.54	101	50	51	5	12	15	13	9	25	9	5	14	17	2	0	.15
Fort Tejon	55.22	75.93	54.64	61.93	89	44	45	0	6	0	40	0	0	1	24	27	4	1	0	.05
Fort Miller	66.19	87.22	74.35	75.92	95	57	38	11	6	16	9	12	10	19	10	16	15	0	0	0
San Francisco	56.25	67.83	56.45	60.17	78	52	26	0	0	0	1	4	50	38	0	15	16	0	0	0
Benicia Barracks	58.41	78.13	66.00	67.51	94	53	41	0	1	2	0	0	0	79	11	23	8	0	0	0
Fort Reading	62.93	83.29	68.06	71.42	98	54	44	23	7	3	3	45	5	3	4	25	6	0	0	0
Fort Humboldt	54.87	63.80	58.06	58.91	71	48	23	19	3	1	0	0	2	6	10	20	11	3	0	.52
Corpus Christi*	67.55	71.51	70.55	69.87	78	53	25	13	22	13	14	2	3	1	13	26	1	1	0	.35
Cantonment Burgwin	39.06	64.70	43.00	48.92	70	26	44	26	1	0	4	54	1	0	2	22	9	1	0	0
Fort Lane	45.87	71.54	54.80	57.40	90	35	55	35	4	1	1	0	2	2	21	21	10	2	0	.32
Fort Vancouver	52.77	64.93	52.64	56.78	73	58	15	2	1	0	7	0	0	0	2	22	9	3	0	1.41
Fort Orford	52.70	63.58	55.35	56.87	79	41	38	22	0	1	17	14	0	3	20	14	17	7	0	3.52
Fort Steilacoom	49.38	65.87	54.70	56.65	71	40	31	10	0	2	4	12	13	23	10	23	8	10	0	5.17
Fort Dalles	49.25	82.74	52.58	61.52	100	40	60	4	36	2	3	4	42	2	0	28	3	2	0	.15

* Observations made for twenty-seven days.

MONTH OF NOVEMBER, 1855.

STATIONS	THERMOMETER. MEAN TEMPERATURE.				RANGE.			WINDS. DIRECTION AND NO. OF OBSERVATIONS.								WEATHER. DAYS		RAIN & SNOW. DAYS		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	W.	W.	NW.	Clear.	Cldy.	Rain.	Snow.	
Fort Independence	38.73	44.40	39.93	41.35	62	20	42	19	12	5	0	8	11	7	28	16	14	10	3	2.32
Fort Hamilton	43.13	49.83	44.50	45.82	68	27	41	12	20	2	9	0	3	3	41	12	18	5	0	3.15
Fort Columbus	42.20	47.86	43.86	44.64	63	28	35	15	18	9	6	1	13	1	25	15	15	8	0	2.40
West Point	42.33	47.90	44.73	44.98	63	29	34	47	0	0	6	25	3	4	5	15	15	10	2	3.60
Fort Ontario	38.10	44.09	40.46	40.85	58	21	36	8	10	15	7	23	7	14	6	10	20	12	3	2.25
Allegheny Arsenal	39.93	49.93	43.03	44.27	67	19	48	15	11	11	4	9	12	13	15	12	18	11	1	5.05
Fort Delaware	44.05	51.08	45.62	46.91	63	28	35	13	21	6	4	3	12	8	25	14	16	6	0	1.45
Fort McHenry	44.10	53.86	48.06	48.64	72	26	46	10	13	16	3	2	5	30	9	14	16	7	0	1.20
Fort Monroe*	52.21	55.78	54.00	53.99	70	42	28	20	7	0	0	0	5	10	13	9	14	2	0	.80
Fort Monroe	59.36	67.50	62.30	62.02	77	42	35	13	24	14	6	12	4	9	7	15	15	7	0	1.58
Fort Dallas	71.90	81.70	75.10	76.23	85	52	33	14	36	0	20	3	2	4	6	26	4	2	0	2.30
Fort Myers	68.86	82.30	72.96	74.70	89	53	36	23	23	9	16	19	0	0	0	12	18	6	0	2.05
Fort Dejnaud	65.50	79.40	70.63	71.84	85	43	42	31	6	14	0	3	0	4	0	17	13	6	0	.75
Fort Brooke	66.70	77.26	71.16	71.70	82	45	37	12	32	24	11	5	2	1	4	25	5	6	0	1.89
Barracas Barracks	62.46	70.30	65.56	66.14	78	42	36	34	12	6	13	10	3	2	10	4	26	8	0	8.40
Mount Vernon Arsenal	58.00	69.16	61.83	62.99	84	42	46	26	15	14	9	13	5	5	7	8	22	12	0	10.78
New Orleans	62.58	71.28	66.20	66.68	82	48	34	17	18	16	25	2	1	3	4	12	18	12	0	5.59
Baton Rouge	58.86	69.93	63.00	63.92	82	40	42	1	19	19	28	5	10	7	10	10	20	9	0	9.55
Key West Barracks	76.63	79.96	78.33	78.30	84	67	17	6	31	28	10	7	4	0	4	20	10	8	0	5.96
Fort Wichita	54.83	61.56	52.80	53.39	76	32	44	8	12	4	23	7	8	10	2	12	18	8	0	3.58
Fort Smith	54.23	63.73	51.53	54.16	80	33	47	4	26	7	14	7	13	7	12	11	19	7	0	4.90
Fort Gibson	41.66	59.50	46.50	49.22	72	20	43	18	7	17	6	12	0	0	0	19	11	6	0	4.50
Jefferson Barracks	40.13	52.06	46.96	46.38	70	21	49	1	12	2	8	13	8	21	6	17	13	6	0	4.50
St. Louis Arsenal	39.10	52.56	43.56	45.07	74	21	53	5	11	1	7	20	18	7	21	18	12	5	0	4.80
Newport Barracks	44.73	52.16	47.26	48.05	68	26	42	28	4	3	0	17	7	17	12	9	21	10	0	7.60
Fort Mackinac	33.96	37.80	34.66	35.14	48	20	28	6	8	18	10	13	11	18	5	14	16	6	6	3.51
Fort Brady	31.70	37.79	32.31	33.93	50	13	37	9	10	19	12	22	2	2	2	15	15	0	14	1.16
Fort Snelling	27.76	40.56	32.83	33.71	58	7	51	11	0	4	20	16	12	13	14	15	15	5	5	2.38
Fort Ripley	21.06	36.03	27.16	28.08	52	3	49	5	12	1	18	17	10	14	8	15	15	2	4	1.96
Fort Ridgely	26.00	37.16	30.70	31.28	53	3	50	4	9	3	20	8	7	8	28	14	16	6	4	1.40
Fort Leavenworth	37.20	47.43	41.00	41.87	70	16	54	12	9	1	6	16	16	12	18	16	14	8	1	2.75
Fort Riley	37.03	49.30	41.97	42.76	69	26	43	19	7	1	8	33	5	11	6	12	18	6	1	1.80
Fort Kearny	26.50	41.50	31.56	33.18	60	8	52	24	13	0	5	4	5	13	26	23	7	1	3	2.12
Fort Laramie	33.69	48.86	38.56	40.34	64	14	50	2	6	20	0	0	10	49	3	18	12	1	4	.18
Fort Pierre	26.53	40.70	28.50	31.91	56	8	48	7	6	13	14	11	3	15	20	24	9	3	2	1.74
Fort Arbuckle	42.56	60.70	48.03	50.43	77	28	49	38	2	6	8	20	5	8	3	19	11	8	0	5.08
Fort Belknap	52.53	63.46	51.93	55.97	80	32	48	20	3	3	3	23	7	10	21	18	12	9	0	4.16
Fort Chadbourne	46.36	68.60	50.66	55.20	89	30	59	14	8	3	3	28	3	23	8	16	14	5	0	3.65
Fort McKavett	51.06	67.56	54.26	57.62	85	35	50	6	15	3	9	16	13	20	6	17	13	5	0	.72
Fort Merrill	58.20	77.93	63.10	66.41	91	40	51	8	10	9	11	33	9	7	3	15	15	2	0	.25
Corpus Christi	64.66	70.33	66.23	67.20	80	45	35	14	22	7	30	1	2	2	12	30	0	4	0	.60
Fort Brown	68.26	77.56	67.70	71.17	87	52	35	15	7	2	21	14	3	6	22	13	17	8	9	3.85
Ruggold Barracks	.....	.....	.....	66.90	89	37	52	...	....	...	....	...	....	....	....	16	14	2	0	.35
Fort McIntosh	58.90	75.50	64.43	67.34	91	37	54	29	5	8	12	24	1	4	7	12	18	5	0	.22
Fort Duncan	56.40	75.26	61.03	62.23	80	44	45	0	0	0	33	0	0	0	50	10	20	2	0	.50
Fort Clark	37.30	71.16	61.20	63.23	85	43	42	36	7	19	15	12	0	0	1	17	13	3	0	.63

MONTH OF NOVEMBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Davis	43.53	69.33	52.60	55.15	78	27	51	9	0	0	2	13	13	4	7	22	8	1	2	1.84
Fort Bliss	48.06	65.10	52.80	55.32	81	37	44	5	1	11	10	10	15	20	12	9	21	2	2	1.25
Fort Fillmore	44.16	64.60	51.40	53.38	78	35	43	8	8	9	11	22	1	31	0	19	11	2	1	.45
Fort Thorn	39.73	57.23	43.13	46.69	72	25	47	15	3	3	2	0	6	30	31	18	12	1	1	1.94
Fort Craig	36.93	60.06	43.36	46.78	77	29	48	32	4	4	0	24	2	21	3	18	12	3	1	1.43
Fort Stanton	28.50	49.93	35.20	37.87	60	2	58	0	0	0	0	0	4	29	27	13	17	2	4	0
Albuquerque	....	....	....	42.03	61	21	40	....	....	....	....	....	....	....	....	30	0	1	1	.77
Santa Fé	28.80	42.48	34.09	35.12	58	17	41	9	11	15	11	4	12	15	13	18	12	2	4	2.69
Fort Union	27.37	42.07	30.87	33.44	55	8	47	60	0	0	2	16	3	5	4	18	12	0	11	2.20
Cantonment Burgwin	23.66	41.90	26.63	30.73	59	6	53	25	4	1	1	47	2	1	1	12	18	0	10	.83
Fort Massachusetts	30.04	36.60	25.26	27.30	55	— 4	59	26	1	1	8	9	24	19	0	13	17	0	5	5.27
Fort Defiance	26.06	49.00	32.73	35.93	64	8	56	44	6	0	0	17	5	5	13	19	11	0	11	1.47
Fort Yuma	56.76	72.10	64.33	64.39	82	44	38	7	9	3	9	2	30	8	22	15	15	2	0	.10
San Diego	46.10	67.43	51.26	54.93	72	34	38	6	16	13	9	1	19	13	13	19	11	5	0	2.23
Fort Tejon	38.30	55.03	42.28	45.20	70	30	40	0	6	0	18	0	6	0	28	25	5	7	0	0
Fort Miller	47.96	62.03	55.40	55.13	71	41	30	2	8	26	13	2	11	22	6	4	26	3	0	.30
San Francisco	49.66	62.30	50.50	54.15	70	46	24	19	5	0	6	7	18	34	1	21	9	8	0	.88
Benicia Barracks	47.97	65.20	55.00	56.06	84	40	44	4	5	33	1	0	2	45	0	18	12	6	0	.54
Fort Reading	42.73	61.66	47.66	50.68	76	34	42	40	11	0	2	27	2	3	5	20	10	7	0	1.33
Fort Humboldt	45.20	57.23	50.26	50.89	64	38	26	10	1	1	1	5	13	2	7	22	8	15	0	3.22
Fort Jones	30.33	49.50	32.46	37.43	56	18	38	28	15	4	10	19	10	1	3	14	16	7	2	1.77
Fort Lane	35.16	47.63	38.40	40.39	55	25	30	5	2	0	8	30	8	8	5	8	22	12	0	3.37
Fort Steilacoom	40.96	51.90	41.90	44.92	66	32	34	10	4	2	6	21	20	10	7	11	19	17	0	11.58
Fort Vancouver	38.86	39.33	38.16	42.11	64	28	36	0	4	0	13	0	1	0	0	13	17	8	0	2.05
Fort Orford	44.30	53.00	43.80	47.03	61	33	28	27	0	0	33	16	1	0	5	9	21	19	0	14.18
Fort Dalles	35.90	62.73	40.60	46.41	79	27	52	6	34	1	0	0	37	7	5	20	10	4	0	1.44

* Observations made for nineteen days only.

MONTH OF DECEMBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW	
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DEPTH.	
	7 A. M.	2 P. M.	9 P. M.	Month.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'd.	Rain.	Snow.	Amt. fell in Inches.
Fort Independence	29.32	36.12	30.29	31.91	59	7	45	10	5	0	5	4	15	18	25	19	12	6	6	3.68
Fort Hamilton	32.55	29.00	34.41	35.41	54	13	41	11	10	0	0	2	21	1	15	19	21	10	1	5.10
Fort Columbus	32.19	37.45	34.41	34.68	52	14	38	1	19	2	5	0	22	7	37	19	21	6	4	4.59
West Point	32.96	38.00	36.19	35.38	49	19	30	11	0	1	1	23	5	6	16	16	15	5	4	5.14
Fort Ontario	27.12	33.62	28.51	29.75	46	- 1	47	4	1	12	16	14	11	34	1	6	25	6	10	1.47
Allegheny Arsenal	28.06	36.09	30.41	31.52	56	6	50	11	4	5	12	23	13	22	3	12	19	8	7	3.28
Fort Delaware	33.19	39.46	34.57	35.74	55	11	44	2	14	1	9	6	14	18	29	16	15	10	2	4.62
Fort McHenry	33.45	41.61	38.22	37.76	61	16	45	30	6	2	8	5	11	28	3	15	16	7	5	3.69
Fort Monroe	44.58	47.69	46.07	46.18	64	31	33	28	3	0	0	6	6	30	20	7	24	7	6	3.27
Fort Moultrie	48.83	57.35	52.25	56.14	69	42	27	11	22	18	3	5	10	10	13	12	19	11	0	7.13
Fort Dallas	65.64	77.32	70.50	71.48	84	55	29	1	37	12	20	6	4	0	13	25	6	2	0	1.80
Fort Capron	66.25	75.74	70.41	70.80	80	45	35	11	8	8	20	14	12	8	12	22	9	10	0	1.61
Key West Barracks	72.54	76.29	74.70	74.51	82	60	22	5	26	15	22	17	6	0	2	19	12	9	0	2.89
Fort Myers	63.00	75.25	66.48	68.24	85	45	40	21	15	12	9	27	0	3	3	11	20	5	0	2.30
Fort Deynaud	60.48	74.00	64.35	66.27	83	11	42	12	29	24	6	8	4	10	9	12	19	5	0	3.03
Fort Brooke	59.96	70.61	64.87	65.14	77	40	37	5	26	6	17	8	16	5	10	27	4	5	0	2.42
Barrancas Barracks	51.67	59.61	54.90	55.39	71	24	47	30	6	5	6	8	0	8	21	8	23	14	0	13.42
Mount Vernon Arsenal	45.54	57.87	49.96	51.12	73	21	52	35	4	10	10	10	4	6	13	10	21	15	0	7.62
New Orleans	55.19	57.96	56.83	56.66	72	30	42	25	29	15	6	7	6	2	9	14	17	18	0	8.23
Baton Rouge	44.61	58.58	51.54	51.57	72	18	54	4	10	30	22	11	3	6	7	12	19	13	0	10.10
Fort Washita	32.06	47.54	39.12	39.57	67	2	65	15	7	3	22	9	5	15	8	16	15	5	2	1.09
Fort Smith	31.16	44.35	36.61	37.37	68	2	66	8	30	5	20	5	18	2	5	17	14	5	0	1.85
Fort Gibson	25.90	36.38	30.80	31.02	65	- 8	73	40	17	10	20	0	3	0	3	21	10	4	1	2.49
St. Louis Arsenal	24.88	35.77	29.10	29.56	63	— 7	70	13	1	0	3	8	39	6	23	23	8	5	3	3.04
Newport Barracks	29.90	37.77	32.74	33.47	60	0	60	15	5	0	0	23	18	31	1	11	20	5	3	4.90
Fort Mackinac	21.83	24.00	22.12	22.65	17	- 1	48	8	1	1	13	9	10	35	13	4	27	4	14	1.77
Fort Brady	16.03	24.32	18.45	19.60	43	— 8	51	9	3	30	7	40	1	0	2	12	19	0	15	1.68
Fort Snelling	4.54	16.77	7.29	9.54	44	—33	77	9	3	2	9	11	24	13	14	21	10	0	7	1.67
Fort Ripley	0.61	11.61	3.48	5.03	39	—39	78	9	10	1	5	15	6	26	10	18	13	0	6	.24
Fort Ridgely	7.48	15.06	8.64	10.39	40	—24	64	6	10	0	13	4	10	11	36	15	16	1	11	2.40
Fort Leavenworth	21.45	29.45	19.74	23.41	60	-15	75	5	19	14	8	8	8	8	23	19	12	2	4	3.56
Fort Riley	18.19	30.61	22.19	23.66	63	—14	77	5	15	1	4	27	18	13	10	19	12	2	4	.49
Fort Kearny	8.42	13.12	13.90	11.81	47	—23	70	44	3	1	0	2	0	16	27	22	9	1	6	1.48
Fort Laramie	16.25	27.13	21.64	21.67	55	—24	79	3	8	10	2	1	9	46	14	16	15	1	6	1.20
Fort Pierre	7.41	22.25	11.93	13.86	48	—19	67	8	2	7	8	5	2	16	44	18	13	0	5	.39
Fort Arbuckle	28.48	47.19	35.00	36.89	75	- 1	76	41	5	8	13	11	3	8	4	23	8	4	1	1.43
Fort Belknap	32.90	51.64	38.90	41.14	72	1	71	32	2	4	1	27	9	5	10	23	8	4	2	.22
Fort Chadbourne	32.19	55.51	38.87	42.19	81	3	78	39	0	0	0	31	14	5	4	19	12	4	0	.10
Fort McKavett	37.19	58.25	43.19	46.24	71	7	64	12	15	2	12	27	15	9	1	25	6	0	0	0
Corpus Christi	54.48	60.58	57.38	57.48	80	20	60	28	26	4	19	1	5	1	9	31	0	1	0	.20
Fort Brown	58.29	68.83	59.58	62.23	84	29	55	9	7	7	17	24	0	1	28	9	22	8	0	.92
Ringgold Barracks				60.35	86	22	64									19	12	1	0	.10
Fort McIntosh	49.67	69.16	55.83	58.22	85	18	67	21	6	6	19	18	8	1	14	16	15	4	0	.01
Fort Duncan	73.38	66.32	52.00	53.24	85	18	67	2	0	2	44	0	0	0	27	12	19	1	0	.15
Fort Clark	43.74	61.58	51.60	52.30	75	15	60	38	7	27	8	13	0	0	0	21	10	0	0	0
Fort Davis	34.51	60.12	42.29	45.64	72	24	48	5	1	1	1	14	4	5	7	22	9	0	0	0

MONTH OF DECEMBER, 1855.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow	
Fort Bliss	42.80	56.19	48.93	49.30	65	29	36	1	1	15	8	2	9	38	19	14	17	0	0	0
Fort Fillmore	34.80	61.64	44.51	46.98	70	25	45	6	6	26	10	15	8	16	6	29	2	0	0	0
Fort Thorn	28.41	41.96	33.16	34.51	50	12	38	26	0	0	0	9	3	31	24	28	3	0	0	0
Fort Craig	22.54	50.96	33.22	35.57	62	8	54	47	0	11	1	12	1	15	6	28	3	0	0	0
Fort Stanton	25.83	46.29	28.25	33.45	63	1	62	0	0	0	0	0	7	49	11	18	13	1	3	(†)
Cantonment Burgwin	14.58	30.26	16.68	20.50	45	—24	69	16	3	0	20	38	12	1	2	17	14	0	10	.49
Albuquerque	19.55	37.93	30.87	29.45	46	5	41	38	3	1	1	1	0	14	13	29	2	0	0	0
Santa Fé	18.90	34.19	26.39	26.62	45	— 9	54	10	22	19	5	2	9	16	10	21	10	2	4	1.86
Fort Union	22.61	37.81	24.80	28.41	50	—28	78	41	1	1	7	16	6	8	13	25	6	0	3	.91
Fort Massachusetts	10.35	24.84	13.51	16.23	39	—30	69	15	1	1	2	17	20	23	13	18	13	0	3	.38
Fort Defiance	18.48	44.12	28.80	29.80	56	—25	81	36	5	0	3	31	5	5	8	22	9	0	9	1.59
Fort Yuma	50.03	65.16	59.48	58.22	76	35	41	18	15	3	6	4	15	7	25	26	5	0	0	0
San Diego	41.09	62.16	46.26	49.83	67	26	41	20	14	11	5	1	17	12	10	20	11	3	0	.31
Fort Tejon	33.18	47.87	36.64	39.33	58	22	36	0	5	0	9	0	3	0	40	21	10	5	0	7.50
Fort Miller	40.03	52.87	46.41	46.43	58	29	29	3	5	30	11	11	9	16	5	6	25	3	0	1.07
San Francisco	44.61	55.12	46.09	48.60	62	33	29	10	16	0	9	15	12	23	8	15	16	16	0	4.31
Benicia Barracks	41.54	53.14	44.96	46.55	61	27	34	0	1	42	1	9	5	35	0	20	11	8	0	2.62
Fort Reading	33.93	46.54	34.61	38.35	56	11	45	46	3	2	1	40	0	0	1	14	17	13	2	8.31
Fort Humboldt	43.03	49.93	45.54	46.16	60	28	32	11	0	0	0	9	32	1	2	13	18	19	0	9.52
Fort Jones	26.19	39.70	26.06	29.03	54	—17	71	47	0	0	4	34	7	2	5	25	6	7	9	6.47
Fort Orford	49.67	46.93	41.87	53.15	55	30	25	25	1	1	29	11	8	1	11	7	24	22	1	20.00
Fort Lane	28.29	38.45	31.38	32.70	50	— 5	55	4	3	0	16	9	29	10	14	9	22	12	8	6.55
Fort Vancouver	28.64	37.74	28.54	28.30	52	— 1	53	2	4	0	36	0	2	0	3	8	23	15	0	10.77
Fort Steilacoom	30.58	40.22	32.74	34.51	55	5	50	34	2	2	4	24	15	2	4	4	27	16	1	14.62
Fort Dalles	22.90	39.83	25.80	29.51	62	— 5	67	5	28	0	6	0	36	0	18	18	13	4	4	2.21

* Slight sprinklings of rain; not measurable.

† No rain gauge.

MONTH OF JANUARY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S	SW	W.	NW.	Fair.	Cldy	Rain.	Snow	
Fort Independence	15.22	24.48	18.45	19.38	36	— 5	41	10	5	0	6	4	8	26	31	21	10	2	10	5.25
Fort Hamilton	21.03	25.77	21.93	22.91	37	5	32	27	29	1	4	0	0	2	30	9	22	1	3	3.65
Fort Columbus	19.42	26.22	21.83	22.49	36	— 6	42	3	18	0	1	0	11	7	53	12	19	2	6	5.60
West Point	18.64	25.87	21.74	22.08	33	0	33	43	1	0	0	8	5	8	28	18	13	2	6	2.81
Fort Ontario	16.00	21.06	18.06	18.15	30	— 3	33	6	2	12	2	17	10	38	6	4	27	0	17	4.95
Alleghany Arsenal	11.41	22.09	16.45	16.65	36	18	54	10	16	11	4	5	18	20	9	11	20	0	14	2.64
Carlisle Barracks	13.29	23 10	16.16	17.51	35	— 9	44	14	4	2	2	1	15	39	17	20	11	0	7	9.45
Fort Delaware	19.14	26.88	23.00	23.06	38	— 4	42	3	18	2	3	2	8	13	43	17	14	3	8	2.22
Fort McHenry	18.76	28.67	23.90	23.77	46	— 4	50	28	7	0	0	0	9	15	4	19	12	3	7	2.11
Fort Monroe	27.64	35.61	31.41	31.55	45	8	37	38	15	1	0	0	7	18	11	22	9	7	3	4.68
Fort Moultrie	35.87	44.77	39.32	39.98	53	24	29	8	23	4	3	5	4	25	20	15	16	11	0	6.89
Fort Capron	54.32	65.74	57.16	59.07	80	32	48	19	3	5	13	4	3	12	31	20	11	11	0	8.26
Key West Barracks	66.00	69.16	67.48	67.54	84	54	30	5	52	11	9	7	6	1	2	13	18	11	0	5.17
Fort Myers	53.90	64.80	56.64	58.44	83	35	48	19	12	5	2	10	5	1	8	9	22	9	0	7.50
Fort Dallas	56.74	67.74	60.80	61.76	84	40	44	46	9	6	18	5	3	0	6	24	7	8	0	8.00
Fort Deynaud	52.87	64.35	57.19	58.13	83	32	51	32	4	18	9	2	4	19	4	12	19	10	0	10.11
Fort Brooke	48.64	57.74	52.06	52.81	77	32	45	12	21	9	8	2	3	8	30	23	8	10	0	5.28
Barrancas Barracks	37.12	48.06	42.70	42.62	68	22	46	35	5	0	5	0	6	6	35	8	23	8	0	5.50
Mount Vernon Arsenal	33.16	47.25	38.09	39.50	63	20	43	30	7	10	2	1	4	7	32	13	18	5	0	5.46
New Orleans	40.19	43.87	43.68	42.58	59	30	29	18	18	13	1	0	10	7	25	15	16	12	0	8.90
Baton Rouge	33.93	46.03	38.93	39.63	63	21	42	10	13	31	4	1	6	10	18	13	18	9	0	6.75
Fort Washita	21.55	36.58	29.42	29.18	59	5	54	17	12	10	9	8	8	11	12	14	17	2	3	2.28
Fort Smith	17.09	34.93	23.29	25.10	58	2	56	12	13	4	16	13	18	7	10	18	13	3	0	2.02
Fort Gibson	15.93	28.77	22.25	22.31	48	—15	63	60	0	6	21	6	0	0	0	10	21	3	5	5.05
St. Louis Arsenal	11.09	23.96	16.61	17.22	44	—18	62	8	14	1	7	4	7	13	30	20	11	0	4	.85
Newport Barracks	13.19	22.45	19.35	18.33	42	15	57	4	11	0	4	8	16	18	2	13	18	1	6	1.23
Fort Mackinac	8.38	15.45	12.67	12.16	29	—11	40	9	3	7	6	8	0	54	6	13	18	0	7	.07
Fort Brady	3.45	18.87	10.77	11.03	36	—24	60	21	1	12	3	44	8	2	2	20	11	0	7	.24
Fort Snelling	7.90	9.06	0.67	6.06	32	-32	64	11	2	1	13	9	23	5	29	18	13	0	6	.89
Fort Ripley	— 8.67	7.42	- 3.16	— 1.47	38	—34	72	13	10	0	8	2	3	14	7	20	11	0	6	.28
Fort Ridgely	— 4.96	6.61	— .03	.53	29	—24	53	7	0	0	9	7	9	10	48	18	13	0	10	3.14
Fort Leavenworth	5.58	16.03	8.76	10.12	35	—14	49	13	13	8	9	7	10	11	21	17	14	0	9	.26
Fort Riley	5.70	17.10	10.19	10.99	39	— 9	48	16	13	3	4	16	18	14	9	18	13	0	4	.07
Fort Kearny	.02	13.26	4.93	6.05	38	—20	58	26	0	0	0	11	1	23	32	18	13	11	2	.27
Fort Laramie	12.74	26.61	17.90	19.08	42	- 7	49	6	8	20	0	2	13	39	5	22	9	0	4	.55
Fort Pierre	— 3.25	12.58	2.03	3.78	34	—29	63	7	9	4	15	5	12	6	35	17	14	0	3	.02
Fort Arbuckle	18.19	35.77	25.48	26.48	58	1	57	36	1	17	4	10	6	10	9	25	6	1	3	.66
Fort Belknap	32.71	42.29	25 12	30.47	62	13	49	51	2	7	3	19	3	1	7	23	8	3	3	.27
Fort Chadbourne	22.87	47.29	28.64	32.93	72	11	61	46	12	0	3	18	8	0	6	13	18	2	3	1.20
Fort McKavett	26.09	46.70	33.00	35.26	63	10	53	17	31	4	5	9	13	6	8	20	11	5	2	2.67
Corpus Christi	38.45	52.52	41.61	44.19	69	22	47	23	19	8	10	6	10	3	14	27	4	0	0	0
Fort Brown	46.25	57.64	48.80	51.56	76	30	46	10	12	7	3	10	0	2	49	12	19	13	0	3.18
Ringgold Barracks	39.93	55.74	47.80	47.93	77	24	53	13	14	1	7	5	0	12	40	15	16	6	0	1.25
Fort McIntosh	36.58	54.67	44.35	45.20	74	22	52	11	23	6	21	7	4	1	20	17	14	8	0	1.19
Fort Duncan	34.74	53.80	42.06	43.53	70	21	49	0	0	0	48	0	0	0	29	15	16	1	0	.18
Fort Clark	34.45	50.16	40.83	41.81	69	21	48	25	13	36	9	8	0	0	0	14	17	1	1	.70

MONTH OF JANUARY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Davis	29.90	48.22	32.42	36.84	63	10	53	19	0	0	0	10	18	12	8	15	16	1	4	.72
Fort Bliss	26.71	49.71	36.22	37.54	60	12	48	3	0	13	7	4	2	51	13	11	20	1	0	.33
Fort Fillmore	30.48	59.06	40.41	43.31	75	20	55	8	9	11	6	11	6	31	11	23	8	0	5	0
Fort Thorn	22.45	39.51	29.32	30.42	46	11	35	6	0	0	1	1	14	33	38	18	13	1	1	1.01
Fort Craig	16.68	51.10	29.13	32 30	62	6	56	47	2	7	2	22	3	9	1	24	7	1	1	0
Fort Stanton	19.48	41.19	25.32	28.66	56	— 2	58	1	0	4	0	0	2	24	11	11	20	0	1	.50
Albuquerque	18.47	40.16	29.54	29.48	50	7	43	35	23	4	2	3	4	5	5	28	3	1	0	.20
Santa Fé	16.61	33.25	22.77	24.21	42	0	42	19	13	7	3	2	5	11	31	22	9	0	4	1.29
Fort Union	18.42	32.80	21.90	24.37	45	— 3	48	12	7	6	9	13	5	31	10	20	11	0	4	.76
Cantonment Burgwin	4.16	28.19	11.39	14.58	40	—12	52	17	10	0	10	42	5	1	2	22	9	0	3	.08
Fort Massachusetts	2.77	22.64	7.64	11.01	43	—18	61	22	4	1	8	17	24	9	7	21	10	0	2	.15
Fort Defiance	11.67	40.06	19.35	23.69	54	— 8	62	21	8	2	5	23	12	14	8	26	5	0	3	.82
Fort Yuma	44.45	65.22	55.29	51.98	71	34	37	19	23	4	5	5	11	7	19	21	10	0	0	0
San Diego	39.42	62.00	46.45	49.29	70	27	43	12	17	17	7	0	18	10	12	17	14	4	0	.66
Fort Tejon	37.45	57.87	42.25	45.85	68	25	43	0	3	0	16	0	11	1	22	23	8	6	2	4.41
Fort Miller	43.45	55.80	49.06	49.43	63	31	32	1	8	31	18	6	11	13	5	8	23	4	0	1.86
San Francisco	46.09	57.58	48.45	50.70	65	37	28	27	9	1	9	9	13	15	10	14	17	13	0	5.74
Benicia Barracks	43.42	52.38	47.42	47.74	62	31	31	0	0	71	1	2	2	17	0	15	16	9	0	4.81
Fort Reading	37.64	57.09	41.41	45.38	63	23	40	53	6	0	0	30	0	1	3	19	12	6	0	8.25
Fort Humboldt	46.61	55.32	50.96	50.96	62	34	28	9	0	1	11	63	8	2	6	23	8	11	0	3.91
Fort Jones	28.45	44.32	31.51	34.76	56	10	46	23	0	0	0	50	11	4	5	7	24	11	0	1.59
Fort Orford	46.16	52.71	48.25	49.04	57	32	25	10	1	5	41	14	2	0	15	3	28	14	0	7.62
Fort Lane	34.45	49.09	39.45	40.99	61	21	40	2	4	2	19	6	18	12	14	7	24	9	0	1.26
Fort Vancouver	33.51	46.58	34.45	37.84	58	24	34	0	3	0	36	0	2	0	21	9	22	13	1	5.00
Fort Steilacoom	37.19	48.77	40.54	42.16	54	28	26	13	6	5	1	28	14	8	5	7	24	12	0	8.35

MONTH OF FEBRUARY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair	Cldy	Rain.	Snow.	
Fort Independence	18.34	27.06	20.93	22.11	41	— 1	42	5	2	0	3	6	13	13	45	18	11	2	6	1.28
Fort Hamilton	23.03	27.93	23.93	24.67	44	5	39	16	11	0	0	0	8	1	51	9	20	1	5	.38
Fort Columbus	20.25	27.96	23.34	23.86	40	4	36	4	5	0	4	1	27	19	36	13	16	0	4	1.25
West Point	22.31	30.10	24.93	25.78	44	7	37	35	2	1	0	23	1	6	19	19	10	1	10	.63
Fort Ontario	15.07	25.21	19.75	20.01	42	— 6	48	13	5	10	5	18	2	25	8	5	24	0	14	2.90
Alleghany Arsenal	14.72	26.82	20.13	20.55	40	—22	62	13	8	4	4	15	14	17	12	10	19	4	12	1.80
Carlisle Barracks	16.17	27.58	20.93	21.56	47	— 5	52	0	0	0	3	11	18	40	15	16	13	1	7	1.50
Fort Delaware	20.94	29.70	24.33	24.99	41	0	41	6	6	2	7	3	9	29	34	18	11	1	3	1.14
Fort McHenry	21.76	32.65	25.41	26.60	49	— 2	51	13	3	3	1	7	20	31	6	17	12	1	4	.50
Fort Monroe	32.13	40.21	35.06	35.80	64	10	54	13	15	0	0	9	15	14	21	17	12	4	1	.50
Fort Moultrie	43.65	53.31	47.20	48.02	71	20	51	8	9	9	6	6	11	22	14	17	12	9	0	2.38
Fort Capron	58.31	68.88	61.24	62.67	84	30	54	29	6	3	7	3	10	13	16	20	9	10	0	7.62
Key West Barracks	66.62	74.37	68.72	68.57	80	46	34	14	34	9	5	10	4	8	3	19	10	8	0	4.12
Fort Myers	56.58	69.89	60.44	62.30	83	33	50	29	10	3	5	20	3	6	9	14	15	7	0	7.60
Fort Dallas	60.89	71.25	65.93	66.03	82	35	47	13	20	9	5	4	14	1	21	20	9	3	0	1.50
Fort Deynaud	55.62	69.34	61.31	62.10	82	30	52	12	8	22	3	3	6	16	17	18	11	8	0	5.25
Fort Brooke	51.86	63.96	56.75	57.52	76	42	34	7	16	5	5	6	8	10	30	21	8	7	0	4.83
Barrancas Barracks	46.55	56.82	52.34	51.90	68	15	53	28	1	3	9	2	11	12	19	10	19	5	0	1.60
Mount Vernon Arsenal	52.24	59.48	49.68	50.46	76	13	63	22	8	7	11	6	6	12	15	15	16	8	0	3.16
New Orleans	50.13	56.00	55.41	53.84	70	27	43	15	9	14	6	8	11	5	18	15	14	11	0	3.68
Baton Rouge	43.93	59.17	49.79	50.96	80	17	63	17	4	22	10	6	6	18	4	15	14	6	0	3.70
Fort Washita	30.72	46.55	37.31	38.96	68	— 1	69	7	16	6	17	3	2	21	10	11	18	5	3	3.44
Fort Smith	29.03	44.06	36.41	36.50	62	1	61	10	9	19	3	6	10	20	9	14	15	7	2	4.55
Fort Gibson	24.27	36.62	29.20	30.36	52	—12	64	39	20	10	13	0	0	1	4	16	13	5	2	5.25
St. Louis Arsenal	17.65	32.45	21.52	23.87	53	—21	74	9	6	0	7	12	6	14	33	16	13	2	6	1.90
Newport Barracks	20.00	30.10	25.13	25.07	53	—20	73	6	4	11	6	6	27	19	8	10	19	2	5	1.80
Fort Mackinac	7.03	16.10	8.65	10.59	35	—16	51	6	3	10	0	3	7	59	8	16	13	0	10	.12
Fort Brady	2.58	17.62	7.17	9.12	45	—29	74	25	3	8	6	35	5	3	2	15	14	0	5	.21
Fort Snelling	3.89	20.65	10.51	11.68	42	—31	73	7	4	1	7	14	23	9	22	17	12	0	4	.18
Fort Ripley	.82	18.27	8.00	9.04	38	—34	72	11	7	0	5	9	2	13	29	17	12	0	2	.08
Fort Ridgely	6.72	20.10	11.37	12.73	37	—23	60	3	3	2	6	7	13	7	42	17	12	0	8	.45
Fort Leavenworth	19.48	32.48	21.89	24.62	54	—19	73	15	14	15	12	7	10	11	5	18	11	0	8	1.07
Fort Riley	21.93	31.17	24.72	25.94	45	—18	63	3	10	5	6	17	20	11	15	16	13	3	6	.84
Fort Kearny	17.28	31.17	19.97	22.80	53	—16	69	24	0	0	2	2	3	18	38	23	6	0	6	.52
Fort Laramie	22.75	38.79	29.34	30.29	60	— 5	65	0	1	13	1	0	14	50	8	17	12	0	5	.45
Fort Pierre	17.51	32.62	23.31	24.47	63	—16	79	14	10	4	8	7	9	3	31	12	17	0	5	.19
Fort Arbuckle	28.13	43.89	33.41	35.14	61	— 4	65	30	9	5	7	10	7	11	8	20	9	5	5	4.10
Fort Belknap	36.55	50.84	37.16	41.54	70	20	50	46	10	10	5	12	2	0	2	21	8	6	1	3.91
Fort Chadbourne	33.51	56.00	38.51	42.67	81	16	65	45	9	0	2	17	0	8	6	13	16	10	3	1.97
Fort McKavett	41.06	55.03	41.58	45.89	80	14	66	14	23	2	9	7	13	9	8	16	13	7	2	5.56
Corpus Christi	49.48	63.13	48.34	53.65	80	28	52	16	11	11	17	9	10	1	9	27	2	4	0	3.15
Fort Brown	57.55	67.27	57.03	60.61	80	28	52	19	3	3	14	27	4	0	17	11	15	8	0	1.50
Ringgold Barracks	53.20	67.72	58.37	59.42	88	26	62	18	11	16	20	4	0	8	10	16	13	5	0	1.60
Fort McIntosh	46.58	67.75	56.27	56.87	92	23	69	21	12	4	20	13	3	1	10	17	12	10	0	1.99
Fort Duncan	43.44	66.00	54.17	54.54	90	20	70	0	0	0	41	0	0	7	21	13	16	4	0	2.75
Fort Clark	44.34	62.31	57.10	54.58	80	22	58	27	7	38	1	13	0	1	0	17	12	5	0	4.03

MONTH OF FEBRUARY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cldy.	Rain	Snow	
Fort Davis	36.37	58.13	37.17	43.89	71	17	54	5	8	0	0	11	21	8	5	19	10	5	0	1.86
Fort Bliss	35.83	57.72	40.97	44.84	68	22	46	5	3	6	6	8	1	32	23	15	14	2	0	5.55
Fort Fillmore	37.62	57.93	44.75	46.76	70	27	43	4	9	32	3	6	5	23	5	21	8	3	0	1.85
Fort Thorn	30.13	42.63	33.06	35.28	53	19	34	5	0	0	3	4	25	15	35	20	9	4	1	1.58
Fort Craig	26.51	68.62	37.76	44.29	73	14	59	14	0	6	0	32	8	23	4	22	7	3	2	1.40
Fort Stanton	31.16	44.10	31.21	36.19	53	19	31	5	0	0	3	5	22	17	35	20	9	2	0	.58
Albuquerque	28.29	49.75	31.89	36.61	60	18	42	25	16	6	1	2	12	7	11	20	9	2	0	.20
Santa Fé	22.75	40.03	25.34	29.71	49	7	42	7	30	25	4	1	6	7	7	19	10	0	8	1.36
Fort Union	20.75	36.00	26.68	27.81	49	— 2	51	14	1	7	9	10	7	25	12	16	13	0	7	1.08
Cantonment Burgwin	16.17	34.69	19.55	23.47	47	— 4	51	21	2	1	10	37	4	1	2	13	16	0	9	.30
Fort Massachusetts	8.89	29.51	15.00	17.80	42	— 9	51	23	7	4	6	8	7	20	9	13	16	0	6	2.14
Fort Defiance	13.31	43.53	19.69	25.51	51	— 3	54	8	8	0	8	23	24	7	9	17	12	0	12	1.54
Fort Yuma	51.31	72.10	61.31	61.51	80	40	40	8	14	1	7	5	19	9	24	20	9	0	0	0
San Diego	43.31	63.10	48.62	51.67	72	32	40	14	10	8	8	0	15	23	9	11	18	7	0	2.04
Fort Tejon	39.38	60.85	45.00	48.41	73	28	45	0	1	0	29	0	5	1	24	20	9	10	2	7.88
Fort Miller	45.90	61.55	51.76	53.07	69	38	31	9	7	13	11	4	10	23	10	11	18	1	0	.83
San Francisco	48.86	62.93	49.20	53.66	74	42	32	16	10	0	6	4	10	22	19	19	10	2	0	.24
Benicia Barracks	47.75	61.24	52.99	53.99	72	43	29	5	0	19	5	11	4	43	0	23	6	3	0	.27
Fort Reading	42.62	63.82	49.51	51.98	80	33	47	59	1	1	2	9	1	11	3	26	3	1	0	.80
Fort Humboldt	44.51	56.58	50.65	50.58	62	33	29	0	0	0	0	2	4	1	26	25	4	7	0	1.97
Fort Jones	32.03	49.51	34.71	38.76	57	24	33	38	2	2	4	30	2	4	5	15	11	2	0	.42
Fort Orford	43.03	56.10	45.93	48.35	65	33	32	24	0	1	15	8	1	0	36	16	13	9	0	4.67
Fort Lane	32.68	55.37	41.06	43.03	68	21	47	1	6	2	13	3	21	14	19	17	12	5	0	.58
Fort Vancouver	38.06	53.27	40.13	43.82	58	25	33	1	3	0	32	0	15	0	18	15	14	8	0	3.07
Fort Dalles	33.96	57.58	35.37	42.30	83	28	55	0	25	0	7	7	39	7	2	23	6	2	3	.54
Fort Steilacoom	37.87	50.55	41.10	43.18	55	28	27	20	4	0	5	6	12	15	9	10	19	7	0	6.26

MONTH OF MARCH, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION. NO. OF OBSERVATIONS.								DAYS		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy.	Rain.	Snow.	
Fort Independence	23.58	33.83	27.70	28.37	46	2	44	5	8	4	3	4	16	32	21	20	11	2	8	1.47
Fort Hamilton	30.09	36.12	30.45	32.22	50	10	40	8	2	0	0	0	17	0	66	13	18	2	5	1.83
Fort Columbus	26.19	35.83	30.32	30.78	47	4	43	4	6	0	5	0	18	6	54	14	17	1	4	3.00
West Point	29.29	37.93	32.00	33.07	47	9	38	43	0	1	2	13	7	13	14	21	10	3	6	1.68
Fort Ontario	19.39	32.42	22.87	21.89	40	— 6	54	11	1	3	1	18	6	47	5	7	24	0	15	1.59
Allegheny Arsenal	21.90	31.61	26.51	27.68	52	— 4	56	20	11	3	2	8	9	21	29	15	16	2	10	1.73
Carlisle Barracks	23.77	35.61	25.43	28.62	54	0	54	0	0	6	6	1	15	45	23	18	13	2	6	1.22
Fort Delaware	28.42	38.11	31.35	32.66	49	6	43	7	8	2	6	5	6	15	41	22	9	3	8	1.14
Fort McHenry	29.12	40.96	32.51	34.16	51	2	49	19	6	4	0	1	9	36	18	20	11	4	4	2.47
Fort Monroe	37.54	45.68	40.77	41.33	60	17	43	10	22	1	1	2	22	8	27	18	13	5	2	1.70
Fort Moultrie	49.32	56.41	51.64	52.43	66	40	26	10	12	14	4	5	11	19	18	13	18	10	0	5.93
Fort Capron	64.84	74.23	66.77	68.61	85	51	36	28	3	3	5	13	8	21	10	24	8	10	0	2.92
Key West Barracks	71.58	77.45	72.64	73.89	87	61	26	19	20	8	16	15	5	3	6	25	6	2	0	1.90
Fort Myers	63.90	76.26	66.13	68.76	85	50	35	25	6	3	0	33	6	14	6	14	17	4	0	1.25
Fort Dallas	65.97	76.29	70.68	70.98	84	49	35	19	7	13	3	16	9	23	2	23	8	5	0	4.90
Fort Desnaud	63.38	76.06	67.61	69.01	87	48	39	11	26	12	8	4	12	5	15	19	12	5	0	5.26
Fort Brooke	60.96	69.45	63.26	64.55	79	47	32	10	14	9	5	9	15	19	10	21	10	8	0	.81
Barrancas Barracks	53.32	62.13	57.77	57.74	73	40	33	25	7	2	3	8	9	15	24	11	20	10	0	7.12
Mount Vernon Arsenal	51.00	65.22	55.35	57.19	81	36	45	19	12	9	9	7	8	7	21	11	20	13	0	5.33
New Orleans	57.97	63.28	61.09	60.45	78	47	31	11	20	16	11	2	14	2	12	13	18	0	6	3.73
Baton Rouge	53.22	66.51	57.16	58.96	82	35	47	18	18	14	5	11	12	12	3	11	20	7	0	3.53
Fort Washita	41.22	57.77	49.00	49.66	85	25	60	6	32	8	7	12	11	9	5	12	19	8	2	2.18
Fort Smith	37.83	54.13	45.58	45.84	83	23	60	11	10	34	4	8	10	10	1	19	12	6	3	1.89
St. Louis Arsenal	27.65	41.39	32.61	33.88	60	8	52	18	18	3	4	5	9	5	33	19	12	0	5	1.02
Newport Barracks	29.70	39.35	35.35	34.80	55	17	38	20	2	17	6	5	14	29	6	14	17	1	6	.55
Fort Mackinac	12.25	23.58	16.90	17.51	47	—19	66	1	2	8	5	3	9	53	12	19	12	0	9	1.21
Fort Brady	9.29	25.48	14.55	16.44	49	—24	73	20	1	3	3	33	5	14	5	24	7	0	9	.45
Fort Snelling	10.67	29.32	19.96	19.98	48	—16	64	6	1	6	13	12	24	5	26	21	10	0	5	.32
Fort Ripley	9.77	27.39	17.22	18.12	42	—19	61	9	13	1	6	12	5	23	17	21	10	0	1	.01
Fort Ridgely	14.96	27.32	17.96	20.08	45	—10	55	3	2	8	5	16	3	10	44	23	8	0	7	.17
Fort Leavenworth	28.74	39.64	32.19	33.52	55	14	41	17	18	7	10	8	11	7	14	18	13	1	4	.11
Fort Riley	30.71	45.39	38.45	38.18	70	15	55	7	22	7	6	21	12	6	12	19	12	1	5	.68
Fort Kearny	25.71	44.58	31.58	33.95	69	12	57	22	6	5	1	7	2	16	34	19	12	4	4	.64
Fort Laramie	30.51	47.64	39.03	39.06	70	1	69	0	3	14	2	3	12	36	3	16	15	6	2	1.75
Fort Pierre	25.51	38.38	28.80	30.23	63	2	61	10	10	13	20	6	3	6	25	15	16	3	4	.64
Fort Arbuckle	39.58	55.70	46.03	47.09	86	22	64	31	16	14	5	19	1	4	3	22	9	6	3	2.49
Fort Belknap	46.13	61.39	47.61	51.71	87	27	60	24	9	29	6	4	5	16	0	17	14	6	3	2.57
Fort Chadbourne	42.09	65.74	49.32	52.38	92	24	68	42	7	3	2	24	4	11	0	12	19	8	0	2.27
Fort McKavett	49.38	65.77	52.93	56.02	89	25	64	17	19	6	10	18	11	8	4	16	15	6	1	1.96
Corpus Christi	58.35	71.00	54.77	61.37	88	32	56	17	29	11	25	4	1	0	6	30	1	0	0	0
Fort Brown	62.67	72.54	64.19	66.46	82	47	35	14	12	12	22	21	0	0	12	14	17	5	0	1.50
Ringgold Barracks	61.38	75.03	65.00	67.13	90	45	45	14	14	29	22	4	0	0	10	12	19	6	0	1.79
Fort McIntosh	57.29	77.22	64.29	66.26	100	39	61	15	16	9	43	4	2	0	4	16	15	7	1	1.19
Fort Duncan	54.97	73.13	62.45	63.51	95	37	58	0	0	3	51	0	0	0	19	12	19	6	0	1.90
Fort Clark	53.19	67.48	60.29	60.32	85	36	49	18	10	38	11	16	0	0	0	13	18	7	0	2.01
Fort Davis	44.84	66.67	49.87	53.79	85	29	65	9	0	0	0	12	23	13	8	20	11	4	2	2.32

MONTH OF MARCH, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Mason	50.39	65.80	58.48	58.22	92	28	64	7	16	3	18	13	17	3	13	17	14	6	1	.....
Fort Bliss	49.55	67.42	48.84	55.27	80	33	47	1	4	13	13	11	11	28	12	20	11	1	0	2.02
Fort Fillmore	48.00	69.35	54.71	57.38	92	28	64	2	3	12	8	29	6	21	2	23	8	1	0	.30
Fort Thorn	41.26	59.71	43.97	47.98	85	22	63	31	3	0	2	9	9	14	25	21	10	3	0	1.03
Fort Craig	40.39	76.06	54.52	56.99	85	24	61	14	3	9	3	32	5	25	2	25	6	3	0	.89
Fort Stanton	37.25	55.83	39.12	44.06	76	9	67	0	0	4	5	0	4	42	10	8	23	3	3	1.59
Albuquerque	35.77	62.13	42.51	46.80	78	19	59	16	26	5	6	8	5	6	18	20	11	2	2	.19
Santa Fe	31.84	50.45	38.10	40.13	70	10	60	4	11	7	19	8	20	18	6	22	9	0	4	2.59
Fort Union	29.51	45.67	34.87	36.68	67	− 4	71	12	2	5	6	14	12	31	11	23	8	0	3	1.11
Cantonment Burgwin	24.61	48.39	27.68	33.66	70	− 5	75	34	3	1	3	41	1	0	1	19	12	2	7	.14
Fort Massachusetts	21.06	40.13	27.16	29.43	61	1	60	19	8	2	10	11	19	11	7	18	13	0	4	35
Fort Defiance	22.85	57.78	28.46	36.36	75	− 1	76	14	11	1	15	28	14	2	8	23	8	0	10	.52
Fort Yuma	62.58	77.45	68.84	69.62	93	49	44	6	19	5	9	3	18	8	25	22	9	2	0	.50
San Diego	45.87	68.74	52.48	55.68	86	31	55	7	13	10	6	7	24	23	3	14	17	9	0	1.97
Fort Tejon	43.93	63.58	46.48	51.33	83	29	54	0	8	0	8	0	7	0	38	24	7	8	1	2.24
Fort Miller	53.26	71.29	57.91	60.82	88	41	47	5	6	7	14	13	13	27	8	13	18	4	0	3.10
San Francisco	49.29	63.68	49.97	54.31	82	41	41	2	2	0	0	6	39	40	4	16	15	6	0	1.17
Benicia Barracks	49.81	67.03	53.16	56.66	82	43	39	0	0	2	1	2	5	83	0	23	8	4	0	1.17
Fort Reading	48.55	74.10	59.26	60.63	89	35	54	57	1	3	1	29	0	0	2	23	8	3	0	2.05
Fort Humboldt	48.09	58.93	52.67	53.23	66	40	26	2	1	0	6	1	5	2	24	18	13	5	0	1.21
Fort Jones	36.26	66.25	44.96	49.15	82	27	55	17	5	5	6	12	11	32	5	18	13	5	1	1.18
Fort Orford	46.35	59.35	48.51	51.40	75	33	42	8	1	0	40	4	2	3	24	15	16	8	0	2.21
Fort Lane	39.19	67.26	51.00	52.48	78	26	52	5	9	3	14	2	15	13	32	21	10	3	0	.44
Fort Vancouver	44.61	60.58	46.48	50.55	73	27	46	2	6	7	12	0	0	1	8	17	14	6	0	1.01
Fort Steilacoom	41.32	56.93	44.93	47.72	69	23	46	14	0	0	0	22	11	23	7	15	16	10	0	7.46
Fort Dalles	38.90	72.35	40.48	50.91	86	26	60	0	19	0	18	2	35	8	11	24	7	4	0	.91

MONTH OF APRIL, 1856.

STATIONS	THERMOMETER.							WINDS								WEATHER				
	MEAN TEMPERATURE.				RANGE.			DIRECTIONS OF OBSERVATIONS								DAYS				Amount in inches
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair	Cl'dy.	Rain.	Snow.	
Fort Independence	41.56	62.00	44.80	16 12	68	26	12	5	16	3	14	4	28	9	15	16	14	10	0	3.56
Fort Hamilton	45.43	59 20	47.03	48.93	74	31	40	7	27	0	1	0	32	6	5	10	20	9	0	4.31
Fort Columbus	45.40	56.23	48.10	49.91	71	23	48	3	12	0	26	1	29	2	14	11	19	13	0	2.65
West Point	46.60	56.86	51.33	51.93	75	27	18	26	1	0	0	40	4	5	4	14	16	10	0	3.56
Fort Ontario	40.10	50.36	41.83	44.09	73	12	61	3	8	8	12	26	10	20	3	8	22	9	1	.97
Allegheny Arsenal	43.43	61.30	50.13	51 62	84	19	65	18	10	7	5	14	17	7	12	12	18	13	2	2 29
Carlisle Barracks	45.73	58 70	48.63	51.35	83	26	57	0	0	0	10	26	14	23	17	13	17	9	2	3.29
Fort Delaware	47.10	58.00	49.16	51.42	78	27	51	10	10	3	21	4	22	3	13	18	12	12	0	3.33
Fort McHenry	50.30	61.76	53.86	54.97	80	30	50	14	7	15	12	11	15	12	4	17	13	13	0	1.48
Fort Monroe	53.60	64.50	57.20	58.43	83	35	48	0	23	0	8	3	31	8	17	21	9	6	0	1.60
Fort Moultrie	59.30	68.33	62.73	63.45	84	56	45	9	12	11	3	21	12	14	4	17	13	3	0	.22
Fort Capron	70.63	77.43	70.13	72.72	87	59	28	7	8	11	20	11	9	13	10	26	4	8	0	.36
Key West Barracks	73.23	78 23	73.70	75.05	87	64	23	15	11	27	28	2	0	1	6	26	4	3	0	.63
Fort Myers	67.93	83.46	70.16	73.85	92	56	36	26	8	7	6	18	7	10	8	24	6	0	0	0
Fort Dallas	67.40	78.83	73.46	73.89	83	55	28	5	31	25	5	8	3	1	12	26	4	4	0	2.00
Fort Desnaud	64.13	80.56	71.93	72.20	89	52	37	5	20	21	25	1	9	1	8	24	6	3	0	.59
Fort Brooke	64.30	79.66	68.93	70.96	87	51	36	3	14	6	2	9	19	15	22	26	4	0	0	0
Barrancas Barracks	64.40	73.50	67.83	68.57	80	49	31	14	4	2	18	8	20	8	16	15	15	6	0	.10
Mount Vernon Arsenal	63.00	76.86	66.05	68.63	89	51	38	11	7	7	20	18	4	6	17	14	16	8	0	3.53
New Orleans	70.37	76.30	70.30	72.32	80	63	17	7	13	14	16	22	6	8	4	22	8	5	0	2.85
Baton Rouge	63.63	77.40	69.40	70.14	84	52	32	14	6	18	7	25	11	3	6	12	18	6	0	3.10
Fort Wa hita	61.03	78.03	66.33	68.46	88	49	39	4	14	2	22	18	14	8	6	13	17	11	0	2.38
Fort Smith	59.93	76.93	65.10	66.32	89	43	46	8	6	24	11	19	13	2	0	23	7	7	0	2.10
Fort Gibson	54.36	82.13	57.16	64.53	90	40	50	9	20	0	31	9	15	6	6	19	11	10	0	5.70
St. Louis Arsenal	49.83	68.60	55.57	58.00	88	33	55	8	2	4	12	18	17	8	21	17	13	7	0	3.98
Newport Barracks	40.43	64.93	58.30	57.88	83	33	50	11	3	1	12	36	2	22	3	12	18	11	0	.90
Fort Mackinac	34.36	43.66	38.33	38.78	59	19	40	6	4	19	12	4	8	30	7	16	14	8	2	.83
Fort Brady	34.86	49.30	35.56	39.90	69	20	49	8	4	14	20	42	0	0	2	13	17	5	0	.71
Fort Snelling	41.40	53.26	47.43	48.23	67	29	38	12	5	7	35	7	9	3	12	15	15	14	1	4.47
Fort Ripley	37.36	50.33	40.53	42.74	67	19	48	4	33	7	13	11	4	6	10	10	20	10	1	4.88
Fort Ridgely	42.13	51.53	44.33	45.99	66	29	37	5	2	10	1	27	7	19	19	16	14	11	0	2.54
Fort Leavenworth	42.46	66.87	56.83	58.72	87	40	47	7	5	9	15	8	9	21	16	18	12	7	0	4.85
Fort Riley	50.87	71.00	58.63	60.16	90	38	52	4	14	4	5	14	20	22	7	19	11	6	0	1.48
Fort Kearny	42.40	60.60	45.46	49.48	80	30	50	14	3	3	9	11	3	1	46	15	15	7	0	3.44
Fort Laramie	46.26	61.43	51.50	53.06	78	31	47	2	0	21	0	0	3	62	2	15	15	2	3	.34
Fort Pierre	41.40	58.73	45.70	48.51	94	29	65	11	9	13	18	4	2	2	30	19	11	10	2	2.68
Fort Arbuckle	57.30	78.70	64.00	66.66	91	43	48	4	8	19	17	28	6	6	4	27	3	9	0	4.16
Fort Belknap	64.46	84.90	66.20	71.85	95	54	41	11	2	6	2	47	7	14	1	19	11	5	0	.29
Fort Chadbourne	57.90	81.86	65.00	68.25	90	48	42	12	4	4	5	50	3	4	8	15	15	4	0	.20
Fort McKavett	64.63	81.86	66.66	71.05	88	57	31	4	15	3	25	18	15	4	5	22	8	12	0	.24
Fort Brown	73.40	80.83	76.66	75.63	88	64	24	6	4	11	45	21	1	0	2	11	19	4	0	.88
Ringgold Barracks	73.05	86.00	74.83	77.97	93	63	30	3	9	29	37	5	0	2	5	16	14	3	0	2.85
Fort McIntosh	70.30	90.43	76.03	78.92	100	59	41	4	16	10	47	5	2	1	5	16	14	8	0	.11
Fort Duncan	68.93	85.56	73.10	75.86	102	62	40	2	0	4	54	0	0	2	3	6	21	3	1	1.45
Fort Clark	67.46	82.66	69.53	73.22	89	61	28	6	7	46	26	2	0	2	1	15	15	2	0	2.16
Fort Davis	60.73	78.83	60.50	66.68	87	52	35	0	0	2	2	23	24	9	2	20	10	3	0	.34

MONTH OF APRIL, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow	
Fort Mason, Texas	63.33	83.33	69.00	71.88	91	52	39	2	6	8	18	18	13	13	5	23	7	8	0	.26
Fort Bliss	58.16	79.26	64.63	67.35	87	45	42	5	10	11	7	2	5	27	23	23	7	0	0	0
Fort Fillmore	62.66	78.96	65.45	69.03	89	52	37	1	0	9	5	33	14	25	3	24	6	0	0	0
Fort Thorn	53.56	88.13	56.53	62.74	93	36	57	10	2	0	0	0	9	35	34	27	3	0	0	0
Fort Craig	55.63	86.33	65.57	69.18	96	38	58	6	3	8	4	46	10	12	1	25	5	3	0	.03
Fort Stanton	55.43	68.10	49.73	57.75	83	41	42	9	4	7	1	4	10	16	28	17	13	2	1	.24
Albuquerque	74.96	74.03	53.20	58.39	82	33	49	7	11	6	8	19	15	10	9	23	7	1	0	.10
Santa Fé	43.36	61.83	44.96	50.05	72	32	40	6	16	7	13	8	15	8	17	16	14	1	4	.88
Fort Union	52.53	59.86	41.80	49.06	68	30	38	8	1	0	5	18	13	34	9	22	8	4	2	1.06
Fort Massachusetts	36.20	54.76	36.80	42.58	66	18	48	8	8	4	5	11	16	27	5	14	16	0	3	1.35
Cantonment Burgwin	41.67	60.43	39.97	47.36	73	25	48	16	2	1	6	49	1	3	3	18	12	4	4	.15
Fort Defiance	35.43	69.73	38.30	47.82	79	24	55	15	5	0	11	42	13	0	4	24	6	3	8	.78
Fort Yuma	65.36	84.83	72.23	74.14	92	59	33	6	18	4	7	2	21	20	12	21	9	0	0	0
San Diego	53.43	72.13	55.86	60.47	82	42	40	1	10	12	11	6	26	17	7	17	13	6	0	2.48
Fort Tejon	46.16	66.73	51.83	54.90	75	38	37	0	6	0	17	0	0	0	46	25	5	9	0	4.98
Fort Miller	58.03	73.16	60.40	63.86	84	50	34	12	3	5	10	7	13	29	11	10	20	1	0	1.18
San Francisco	52.56	63.43	51.33	55.77	76	47	29	3	3	0	3	6	27	34	14	19	11	10	0	2.24
Benicia Barracks	52.40	65.70	58.10	58.73	72	46	26	0	0	12	2	0	14	58	4	15	15	6	0	1.72
Fort Humboldt	50.56	59.20	53.70	54.49	66	42	24	15	0	0	8	3	7	3	14	20	10	11	0	4.39
Fort Jones	41.66	62.30	44.40	49.78	76	31	45	15	1	1	4	15	14	35	5	14	16	11	1	1.84
Fort Orford	47.73	58.26	46.13	50.70	63	31	32	21	0	0	45	0	9	3	6	12	18	14	0	11.30
Fort Lane	46.43	60.83	47.20	51.48	75	35	40	4	6	0	5	0	25	10	20	15	15	12	0	2.53
Fort Vancouver	48.03	58.30	47.06	51.13	70	42	28	0	0	5	24	10	14	9	1	10	20	21	7	4.01
Fort Steilacoom	46.46	59.60	47.16	51.07	68	40	28	3	0	1	2	37	19	15	6	11	19	18	0	13.29

MONTH OF MAY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow.	
Fort Independence	49.22	58.83	51.09	53.05	87	10	47	3	21	14	11	5	11	11	17	15	16	17	0	5.13
Fort Hamilton	55.61	61.48	54.58	57.22	83	42	41	7	34	0	6	0	29	0	17	10	21	12	0	3.42
Fort Columbus	54.42	63.51	56.00	57.64	81	42	39	1	13	0	18	2	29	1	38	14	17	15	0	3.65
West Point	55.77	62.93	58.41	59.03	86	46	40	35	1	3	6	30	4	5	9	14	17	13	0	6.59
Fort Ontario	49.93	54.13	49.10	51.05	77	37	40	1	7	14	9	10	8	35	9	12	19	11	0	2.95
Alleghany Arsenal	53.61	68.12	56.61	59.44	88	36	52	12	10	10	5	2	10	16	28	13	18	18	1	2.52
Carlisle Barracks	53.90	64.48	57.81	58.73	87	40	47	3	0	0	29	6	13	20	22	18	13	10	0	3.35
Fort Delaware	57.00	66.64	57.39	60.34	85	44	41	9	15	8	16	8	10	6	21	21	10	11	0	2.57
Fort McHenry	57.90	69.12	60.70	62.56	85	45	40	17	11	5	10	14	8	13	15	20	11	10	0	1.19
Fort Monroe	62.26	72.48	65.03	66.60	89	52	37	3	22	3	6	29	8	13	9	20	11	10	0	2.72
Fort Moultrie	70.00	75.48	71.29	72.25	87	60	27	5	22	23	9	16	9	3	5	15	16	8	0	4.14
Fort Capron	75.45	82.32	75.61	77.79	93	66	27	0	14	15	14	14	13	19	4	9	22	9	0	5.98
Key West Barracks	79.42	82.68	78.96	80.35	85	75	10	2	0	2	11	22	29	11	13	7	24	8	0	2.77
Fort Myers	75.16	87.70	75.77	79.45	92	67	25	10	5	8	4	13	17	19	16	6	25	11	0	2.15
Fort Dallas	76.35	82.90	78.54	79.26	89	69	20	1	10	17	9	34	7	13	2	25	6	5	0	4.70
Fort Deynaud	72.20	83.83	76.22	77.41	90	66	24	7	15	6	9	4	22	11	19	18	13	11	0	8.64
Fort Brooke *	72.90	84.25	75.03	77.39	92	65	27	7	13	8	23	14	18	4	6	19	12	11	0	.....
Barrancas Barracks	73.42	78.32	73.48	75.09	92	61	31	25	6	2	14	8	9	5	24	7	24	11	0	4.64
Mount Vernon Arsenal	70.16	80.77	71.54	74.18	91	59	32	29	22	4	18	6	6	1	7	17	14	13	0	3.41
New Orleans	77.35	81.03	78.87	79.08	89	68	21	12	14	15	28	17	1	2	4	21	10	4	0	2.53
Baton Rouge	70.54	83.09	75.19	76.27	93	62	31	18	27	8	5	17	1	8	9	14	17	8	0	5.48
Fort Washita	66.80	72.60	69.06	69.48	95	54	41	3	11	6	27	6	6	6	9	14	17	4	0	2.57
Fort Smith	64.64	80.51	70.51	70.54	92	53	39	11	7	24	9	23	10	5	0	24	7	4	0	.55
Fort Gibson	62.55	87.64	72.39	74.19	93	51	42	9	10	5	23	18	12	6	0	18	13	6	0	2.75
Jefferson Barracks †	62.53	75.88	66.80	68.40	91	51	40	1	13	5	11	12	21	1	14	20	6	5	0	3.95
St. Louis Arsenal	60.26	75.32	62.52	66.03	93	48	45	10	12	7	14	11	6	7	26	21	10	5	0	2.30
Newport Barracks	56 70	70.70	63.90	63.76	85	39	46	19	14	0	7	18	28	2	5	13	18	7	0	1.00
Fort Mackinac	44.61	54.42	46.13	48.38	69	34	35	16	8	24	5	2	5	25	8	18	13	7	11	2.08
Fort Brady	50.00	58.06	44.06	50.70	75	32	43	28	2	4	9	37	5	1	6	25	6	3	0	.55
Fort Snelling	53.90	68.29	58.93	60.38	91	36	55	11	17	12	12	8	13	5	15	20	11	9	0	1.62
Fort Ripley	52.58	55.83	54.12	54.17	88	39	49	4	26	11	9	13	5	7	9	18	13	8	0	2.01
Fort Ridgely	59.48	66.61	57.00	61.03	91	38	53	7	0	29	3	18	2	20	10	20	11	8	0	1.30
Fort Leavenworth	60.42	72.42	63.61	65.48	89	47	42	15	2	0	21	24	9	8	11	18	13	6	0	3.30
Fort Riley	60.39	75.48	64.74	66.87	99	45	54	11	3	5	3	30	11	16	14	23	8	5	0	1.94
Fort Kearny	56.45	63.60	56.93	58.99	94	34	60	18	11	8	1	13	13	1	28	18	13	5	0	3.18
Fort Laramie	54.54	67.93	60.19	60.89	86	35	51	1	4	39	6	1	2	44	1	16	15	7	4	3.51
Fort Pierre	54.70	70.58	59.13	61.47	100	34	66	5	13	13	27	8	3	5	19	20	11	4	2	2.19
Fort Arbuckle	64.00	80.32	66.77	70.36	95	51	44	11	6	22	11	31	1	6	2	27	4	6	0	3.95
Fort Belknap	68.06	85.45	69.32	74.27	99	55	44	20	2	15	2	33	8	10	3	22	9	9	0	3.42
Fort Chadbourne	65.48	82.70	69.39	72.52	99	51	48	15	2	14	2	49	8	1	2	22	9	8	0	1.00
Fort McKavett	68.48	83.87	70.61	74.32	100	51	49	2	17	9	14	41	8	0	2	21	10	6	0	.95
Fort Mason	71.19	81.64	73.74	75.52	94	54	40	8	17	26	18	12	7	3	2	23	8	7	0	1.83
Fort Lancaster	.....	.....	.....	73.13	101	54	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Brown	78.12	86.35	76.87	80.44	96	66	30	1	5	24	47	6	1	2	7	22	9	5	0	2.05
Ringgold Barracks	45.40	88.51	76.29	80.06	101	69	41	8	4	19	49	0	0	7	6	20	11	5	0	1.41
Fort McIntosh	74.51	93.61	79.86	82.66	107	60	47	7	9	15	48	6	2	1	5	15	16	5	0	1.63

MONTH OF MAY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy	Rain.	Snow.	
Fort Duncan	73.26	91.43	79.58	81.42	106	58	48	0	0	1	59	0	0	1	2	13	18	7	0	1.85
Fort Clark	71.13	88.63	76.03	78.59	99	57	42	21	7	35	30	0	0	0	0	17	14	1	0	.84
Fort Davis	66.09	81.29	67.25	71.54	94	49	45	9	0	0	0	12	22	1	1	24	7	5	0	2.58
Fort Bliss	65.90	88.84	70.77	75.17	101	51	50	0	5	4	11	16	24	25	5	25	5	0	0	0
Fort Fillmore	69.09	85.22	71.77	75.37	100	55	45	0	0	20	14	41	10	8	0	25	6	0	0	0
Fort Thorn	56.54	92.83	56.51	68.63	105	47	58	3	8	0	3	0	15	46	18	28	3	1	0	.08
Fort Craig	63.81	88.45	77.42	76.56	100	40	60	11	2	4	6	33	11	21	5	27	4	2	0	.29
Fort Stanton	57.10	73.35	54.77	61.74	91	37	54	4	0	7	3	2	8	20	13	10	21	3	0	.25
Albuquerque	59.74	81.42	60.26	67.14	100	40	60	9	5	0	7	39	18	9	6	26	5	4	1	.23
Santa Fé	54.77	66 54	55.29	58.87	86	40	46	8	8	6	10	6	21	19	15	22	9	3	0	.48
Fort Union	51.55	66.77	53.64	57.32	78	32	46	9	0	6	7	17	19	26	9	21	10	4	0	.56
Cantonment Burgwin	51.58	71.39	47.29	56.75	90	32	58	26	1	0	1	58	3	1	0	11	20	6	0	.04
Fort Massachusetts	46.38	64.64	45.22	52.08	85	29	56	7	20	2	8	8	13	12	12	12	19	0	0	0
Fort Defiance	44.13	76.03	44.16	54.77	84	37	47	10	7	1	9	31	24	3	8	24	7	3	5	.33
Fort Yuma	71.00	89.68	76.32	79.00	104	60	44	4	9	7	31	5	19	6	12	28	3	0	0	0
San Diego	56.71	70.80	58.68	62.06	82	43	39	0	6	14	12	6	24	21	10	12	19	2	0	.27
Fort Tejon	54.51	73.54	58.30	62.11	86	38	48	0	4	0	21	0	0	0	36	30	1	5	1	4.62
Fort Miller	64.77	80.90	70.22	71.96	98	50	48	12	4	7	1	10	16	34	9	9	22	1	0	1.10
San Francisco	52.67	58.61	50.86	54.04	65	46	19	0	0	0	0	5	57	28	3	17	14	4	0	.54
Benicia Barracks	53.68	68.13	58.68	60.16	82	43	39	0	0	0	4	0	12	70	7	23	8	3	0	.75
Fort Humboldt	54.12	61.29	55.77	57.06	69	48	21	34	0	0	4	1	5	0	3	17	14	7	0	1.31
Fort Jones	49.32	73.32	53.03	58.55	89	35	54	8	2	2	1	10	25	42	3	16	15	8	1	2.77
Fort Orford	52.06	61.35	50 64	54.68	69	46	23	33	0	0	27	0	2	0	23	19	12	9	0	3.20
Fort Lane	56.29	70.71	57.19	61.39	83	40	43	0	19	2	6	0	16	5	41	19	12	9	0	1.91
Fort Vancouver	54.96	68.30	56.00	59.75	78	44	34	0	0	4	16	12	23	4	26	17	14	12	0	4.08
Fort Steilacoom	52.39	69.71	57.51	55.25	84	46	38	4	0	3	5	10	14	32	11	16	15	11	0	5.55

* Rain gauge out of order; no measurements made.

† Observations made for twenty-six days only.

MONTH OF JUNE, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cldy	Rain.	Snow	
Fort Independence	63.06	75.33	65.23	67.87	91	50	41	8	12	3	22	15	15	8	7	19	11	15	0	2.65
Fort Hamilton	69.00	75.40	67.26	70.55	97	52	45	0	8	0	7	0	38	5	32	13	17	9	0	3.79
Fort Columbus	67.33	78.00	68.03	71.11	91	55	36	1	11	0	17	14	28	8	11	15	15	15	0	2.90
West Point	65.00	75.20	70.76	70.32	90	54	36	19	0	1	7	38	5	5	18	17	13	10	0	4.13
Fort Ontario	66.56	70.70	61.86	66.37	93	48	45	3	4	8	16	14	12	29	4	17	13	8	0	1.70
Alleghany Arsenal	66.13	82.20	69.50	72.61	96	57	39	10	3	7	5	7	25	22	10	13	17	13	0	3.99
Carlisle Barracks	66.90	78.46	71.33	72.23	93	49	44	0	0	2	23	15	24	24	1	20	10	11	0	3.54
Fort Delaware	71.13	78.46	71.33	72.23	93	49	44	2	17	1	11	12	27	8	12	20	10	4	0	2.12
Fort McHenry	71.23	81.30	74.00	75.51	95	56	39	2	7	18	9	14	18	20	2	18	12	9	0	.92
Fort Monroe	73.10	78.26	75.54	75.63	91	61	30	0	23	13	5	5	42	0	0	19	11	8	0	4.55
Fort Moultrie	78.56	84.70	79.63	80.96	92	72	20	3	4	9	6	33	14	15	4	15	15	10	0	2.38
Fort Capron	79.43	85.43	79.40	81.43	91	74	17	0	2	13	28	26	13	7	1	21	9	17	0	4.41
Key West Barracks	82.50	85.16	81.40	83.02	88	77	11	0	3	6	47	14	5	11	4	20	10	8	0	2.28
Fort Myers	78.50	86.93	78.30	81.24	98	74	24	18	6	13	8	15	8	17	5	5	25	14	0	7.65
Fort Dallas	80.46	84.43	81.16	82.02	88	76	12	0	10	35	16	16	1	12	0	19	11	7	0	6.70
Fort Brooke	79 16	88.50	78.76	82.14	93	73	20	4	2	10	17	9	18	22	8	23	7	14	0	5.65
Barrancas Barracks	77.53	84.30	79.40	80.40	91	71	20	4	2	5	9	7	23	9	31	9	21	9	0	6.18
Mount Vernon Arsenal	75.16	84.13	76.53	78.60	94	68	26	3	6	15	25	11	8	12	10	13	17	16	0	9.26
New Orleans	81.13	85.06	82.70	82.99	89	78	11	3	5	25	18	10	17	8	4	22	8	13	0	5.79
Baton Rouge	77.16	88.83	80.43	82.14	94	74	20	19	5	2	6	38	6	6	8	9	21	10	0	2.55
Fort Washita	77.23	91.10	78.66	82.23	95	70	25	2	6	6	25	19	23	5	2	10	20	6	0	.31
Fort Smith	73.93	89.63	80.13	81.23	95	62	33	6	3	29	7	25	8	6	1	22	8	4	0	.99
Fort Gibson	73.60	94.07	81.83	83.13	100	63	37	6	0	15	35	29	9	6	5	18	12	4	0	1.75
Jefferson Barracks	72.70	87.30	77.93	79.31	99	58	41	0	4	0	38	5	22	0	21	24	6	6	0	3.80
St. Louis Arsenal	70.96	87.86	75.13	77.99	101	60	41	3	8	2	9	30	20	1	17	25	5	3	0	1.18
Newport Barracks	69 06	81.20	75.06	75.10	93	58	35	0	1	0	2	34	28	25	0	14	16	8	0	4.65
Fort Mackinac	55.60	63.73	58.00	59.10	80	44	36	8	1	15	13	6	7	36	4	17	13	16	0	2.47
Fort Brady	59.36	65.46	57.63	60.81	89	45	44	0	0	0	5	56	22	0	7	10	20	13	0	2.47
Fort Snelling	68.00	80.13	70.65	72.88	91	51	40	13	3	4	17	18	18	4	13	24	6	3	0	.76
Fort Ripley	65.16	76.43	64.73	68.70	93	44	49	6	15	7	8	17	14	12	6	16	14	6	0	3.81
Fort Ridgely	68.10	79.90	67.63	71.88	94	51	43	4	0	13	4	10	7	36	10	23	7	6	0	1.46
Fort Leavenworth	72.26	83.10	74.36	76.57	94	60	34	4	0	3	22	51	3	1	6	13	17	7	0	3.56
Fort Riley	74.30	87.60	78.30	80.07	100	61	39	8	1	3	4	45	12	11	6	22	8	6	0	4.55
Fort Kearny	72.66	88.50	72.36	77.84	101	55	46	14	5	2	6	22	18	7	16	22	8	4	0	4.65
Fort Laramie	67.00	87.13	70.70	74.94	102	57	45	3	4	20	13	7	4	30	4	23	7	8	0	.82
Fort Pierre	68.23	86.36	69.16	74.58	104	56	48	10	2	22	21	5	3	9	17	23	7	4	0	.48
Fort Arbuckle	74.93	92.33	78.86	82.04	98	61	37	4	1	18	24	37	2	1	2	27	3	10	0	1.53
Fort Belknap	80.63	98.96	83.13	87.56	104	72	32	6	1	8	4	47	11	13	0	21	9	7	0	1.39
Fort Chadbourne	75.26	94.70	81.56	83.84	106	68	38	0	6	2	17	61	3	1	0	22	8	4	0	.55
Fort McKavett	76.00	93.76	79.40	83.05	103	70	33	0	3	3	17	54	13	0	0	24	6	5	0	.37
Fort Mason	75.83	91.23	83.40	83.48	99	72	27	3	2	10	42	31	0	0	2	26	4	2	0	.30
Fort Lancaster				82.84	107	68	39													
Fort Brown	81.16	88.10	80.43	83.23	93	75	18	0	0	6	75	8	1	0	0	26	4	1	0	3.25
Ringgold Barracks	82.26	96.20	80.63	85.69	102	73	29	0	3	16	66	5	0	0	0	21	9	5	0	3.07
Fort McIntosh	79.73	95.23	85.90	86.75	102	76	26	0	1	19	58	11	0	0	1	16	14	3	0	1.36
Fort Duncan	79.27	98.83	86.93	88.34	108	70	38	0	0	7	74	0	0	0	0	12	18	2	0	2.55

MONTH OF JUNE, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	N.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Clark	77.10	94.60	83.96	85.22	103	72	31	9	3	52	26	0	0	0	0	12	18	2	0	.78
Fort Davis	74.03	90.16	71.76	79.65	104	65	39	15	4	4	2	13	11	3	0	19	11	7	0	1.22
Fort Bliss	76.46	98.58	80.80	85.26	105	67	38	0	6	15	9	11	29	10	10	15	15	5	0	2.20
Fort Fillmore	79.20	94.46	81.50	85.05	100	73	27	0	0	16	12	42	5	15	0	21	9	2	0	.85
Fort Thorn	72.23	101.20	74.13	82.52	111	64	47	0	11	2	1	3	19	36	18	21	9	3	0	.74
Fort Craig	72.53	98.03	87.77	86.11	104	60	44	13	4	10	6	11	12	3	1	24	6	6	0	1.21
Fort Stanton	72.80	85.03	67.53	75.12	96	55	41	0	0	9	7	2	11	14	5	6	24	13	0	.68
Albuquerque	71.83	99.46	74.03	81.77	103	63	40	0	1	3	7	33	15	28	1	23	7	4	0	.25
Santa Fé	69.50	83.23	67.96	73.56	89	60	29	3	8	10	21	14	15	13	6	19	11	4	0	2.32
Fort Union	65.90	80.06	61.06	70.00	88	56	32	6	2	0	6	21	17	31	7	24	6	7	0	.65
Cantonment Burgwin	65.77	87.70	58.73	70.73	95	52	43	24	1	0	4	51	1	1	2	24	6	7	0	.21
Fort Massachusetts	60.20	80.60	58.72	66.50	88	48	40	10	3	3	8	13	13	19	11	15	15	2	0	.55
Fort Defiance	57.29	87.23	57.26	67.26	96	37	59	4	9	2	19	28	18	6	4	25	5	6	0	.10
Fort Yuma	84.93	105.33	85.03	93.08	114	78	36	3	5	4	24	8	29	5	12	27	3	0	0	0
San Diego	64.36	81.76	65.70	70.60	102	57	45	1	3	18	10	4	34	20	0	20	10	0	0	0
Fort Tejon	62.80	85.36	67.81	71.99	94	50	44	0	5	0	17	0	2	0	36	29	1	0	0	0
Fort Miller	72.83	93.46	82.20	82.49	106	63	43	7	3	2	6	10	18	32	12	22	8	0	0	0
San Francisco	55.16	62.43	52.83	56.88	69	50	19	0	1	0	0	0	57	31	1	21	9	0	0	0
Benicia Barracks	58.66	77.73	62.77	66.38	91	53	38	0	0	0	0	0	0	90	0	30	0	1	0	.03
Fort Humboldt	57.86	64.43	57.63	59.97	68	53	15	31	5	0	3	0	2	0	5	18	12	5	0	61
Port Jones	59.06	81.06	62.56	69.56	97	46	51	7	0	0	0	29	15	37	2	27	3	3	0	.60
Fort Orford	55.73	63.40	52.93	57.02	69	45	24	32	0	0	18	0	0	0	20	21	9	8	0	1.85
Fort Lane	61.03	78.03	61.16	66.74	93	50	43	19	13	4	4	0	8	15	25	24	6	3	0	.41
Fort Vancouver	58.50	68.03	58.33	61.62	81	52	29	0	0	6	4	17	18	27	11	16	14	10	0	3.26
Fort Steilacoom	64.63	67.66	56.53	59.60	83	50	33	3	1	0	1	22	15	17	19	14	16	12	0	7.21

MONTH OF JULY, 1856.

STATIONS	THERMOMETER: MEAN TEMPERATURE 7 A M	2 P M	9 P M	Mean.	RANGE: Max.	Min.	Range	WINDS: DIRECTION, NO. OF OBSERVATIONS N.	NE.	E.	SE.	S.	SW.	W.	NW.	WEATHER DAYS: Fair.	Cl'dy.	RAIN & SNOW DAYS: Rain.	Snow.	Amount in Inches.
Fort Independence	68.29	82.00	71.35	73.88	98	57	41	2	1	14	10	14	29	9	10	21	10	9	0	4.38
Fort Hamilton	75.58	82.58	74.06	77.40	95	65	30	2	2	0	1	4	19	4	25	18	13	6	0	2.73
Fort Columbus	71.77	85.19	74.58	77.18	95	62	33	3	7	3	9	6	37	6	22	22	9	8	0	2.50
West Point	74.38	81.83	77.19	77.46	95	66	29	26	3	3	5	34	2	11	9	20	11	9	0	2.42
Fort Ontario	72.10	76.50	68.06	72.21	93	52	41	2	5	12	9	11	21	27	6	23	8	8	0	2.16
Alleghany Arsenal	69.35	85.45	72.83	75.87	96	60	36	26	15	9	4	8	10	8	14	20	11	9	0	2.71
Carlisle Barracks	73.22	82.35	74.32	76.63	93	63	30	0	7	2	12	17	30	24	0	23	8	9	0	3.89
Fort Delaware	75.66	86.97	76.14	79.39	97	66	31	8	12	4	13	13	19	11	13	23	8	6	0	1.90
Fort McHenry	75.32	85.51	78.32	79.73	98	65	33	15	7	17	15	14	5	12	8	22	9	8	0	1.82
Fort Monroe	78.42	83.35	80.00	80.60	93	73	20	0	30	10	9	2	37	1	2	23	8	6	0	2.13
Fort Moultrie	80.31	86.38	81.77	82.88	96	73	23	3	10	11	10	27	16	7	2	16	15	14	0	3.99
Fort Capron	81.42	84.77	80.03	82.11	91	75	16	2	4	17	19	16	25	8	2	23	8	15	0	9.29
Fort Myers	80.13	87.45	80.48	82.58	95	76	19	18	6	10	9	16	10	12	12	4	27	15	0	12.45
Fort Dallas	80.25	85.25	81.84	82.45	89	75	14	0	4	32	24	12	6	14	1	17	14	8	0	4.80
Fort Brooke	78.77	87.22	79.35	81.78	93	73	20	2	7	8	35	7	13	9	12	21	10	13	0	*22.24
Barrancas Barracks	79.67	85.42	80.74	81.94	91	75	16	8	0	0	14	4	16	11	40	6	25	10	0	4.42
Mount Vernon Arsenal	78.29	88.77	78.09	81.71	95	71	24	9	13	6	18	11	12	13	11	13	18	10	0	3.19
New Orleans	82.35	86.13	83.71	84.12	90	79	11	15	5	11	23	5	18	9	17	12	19	14	0	8.63
Baton Rouge	77.58	86.80	80.00	81.45	94	74	20	17	13	6	11	21	13	8	4	5	26	13	0	7.20
Fort Washita	89.32	95.45	82.22	85.99	106	74	32	2	12	3	23	29	12	2	1	11	20	8	0	.77
Fort Smith	76.61	93.09	83.82	83.90	103	70	33	3	3	11	9	18	9	4	1	25	5	4	0	4.69
Fort Gibson	81.06	99.13	85.59	88.56	105	65	40	0	3	9	26	29	16	10	0	17	14	2	0	.76
Jefferson Barracks	76.90	91.84	83.13	84.95	102	72	30	0	7	4	40	4	30	0	7	29	2	3	0	2.15
St. Louis Arsenal	74.13	93.61	80.16	82.63	107	67	40	16	14	2	4	16	18	6	17	21	10	5	0	3.41
Newport Barracks	72.54	85.20	78.09	78.63	94	65	29	13	2	0	4	36	29	2	7	15	16	4	0	3.85
Fort Mackinac	63.41	71.64	64.29	66.44	82	55	27	4	3	14	3	10	6	43	10	23	8	9	0	1.73
Fort Brady	65.32	77.30	63.16	68.59	91	49	42	4	0	0	2	58	19	0	10	21	11	6	0	1.11
Fort Snelling	69.90	84.45	74.00	76.11	95	62	33	8	4	4	18	27	16	9	7	25	6	6	0	2.47
Fort Ripley	71.19	81.30	69.48	73.99	92	60	32	2	6	6	4	36	11	16	4	24	7	6	0	4.53
Fort Ridgely	72.09	84.71	70.35	75.71	96	62	34	0	10	15	18	17	14	7	6	22	9	6	0	2.30
Fort Leavenworth	76.13	87.74	78.90	80.92	99	65	34	6	4	6	31	36	4	0	6	14	17	11	0	9.11
Fort Riley	76.84	96.48	81.26	84.86	104	66	38	2	0	5	5	54	8	16	3	8	23	9	0	3.40
Fort Kearny	72.42	87.42	74.23	78.02	98	62	36	5	6	2	6	31	11	18	14	18	13	10	0	5.09
Fort Laramie	66.67	90.32	72.70	76.56	104	56	48	17	3	27	6	7	4	10	11	20	11	10	0	4.15
Fort Pierre	73.09	90.77	74.38	79.41	104	61	43	8	5	14	35	8	1	3	19	27	4	7	0	1.98
Fort Arbuckle	78.61	97.48	82.12	86.07	109	64	45	4	2	19	25	37	2	0	4	30	1	7	0	1.77
Fort Belknap	84.74	101.19	89.84	91.92	108	74	34	1	1	0	0	70	10	10	1	22	9	4	0	3.19
Fort Chadbourne	76.77	96.32	84.48	85.85	105	70	35	0	4	17	27	41	2	2	0	20	11	3	0	.25
Fort McKavett	78.12	94.85	82.58	85.18	101	71	30	0	3	2	18	55	13	1	0	25	6	3	0	1.77
Fort Mason	76.87	93.73	85.00	85.29	100	70	30	0	1	17	37	28	10	0	0	29	2	1	0	.65
Fort Brown	80.77	87.61	80.93	83.10	93	76	17	0	1	10	61	21	0	0	0	15	16	6	0	1.90
Fort Lancaster	77.56	92.26	82.16	83.95	99	68	31	0	0	3	7	77	2	0	0	7	24	2	0	.85
Ringgold Barracks	82.96	95.16	80.61	86.24	101	75	26	0	3	12	76	2	0	0	0	29	2	3	0	1.09
Fort McIntosh	80.38	96.74	87.29	88.11	103	76	27	0	1	15	51	24	1	1	0	14	17	4	0	.29
Fort Duncan	81.00	99.68	78.03	86.23	107	75	32	0	0	2	75	0	0	0	0	8	23	3	0	1.00
Fort Clark	79.03	96.45	83.13	85.87	103	70	33	1	5	62	22	3	0	0	0	3	28	4	0	.14

MONTH OF JULY, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair	Cl'dy.	Rain.	Snow	Amount in inches.
Fort Davis	72.93	86.74	74.29	77.98	99	63	36	0	1	7	0	17	12	3	4	21	10	8	0	3.48
Fort Bliss	78.74	99.00	80.58	86.12	105	73	32	1	8	18	21	10	15	11	9	20	11	3	0	.58
Fort Fillmore	81.35	93.25	80.55	85.05	100	75	25	0	0	21	12	45	5	10	0	19	12	2	0	.86
Fort Thorn	78.03	100.41	75.70	84.73	106	70	36	6	14	9	4	0	6	38	16	25	6	0	0	.17
Fort Craig	75.29	97.77	85.94	86.33	104	70	34	12	2	10	13	37	10	8	1	23	8	5	0	.97
Fort Stanton	72.70	78.90	68.96	73.52	88	63	25	0	1	15	1	0	8	13	10	5	26	12	0	1.99
Albuquerque	75.00	98.96	75.56	83.17	104	70	34	3	2	3	7	39	11	26	2	6	25	3	0	.17
Santa Fé	72.38	81.32	69.35	74.35	91	63	28	4	15	24	15	5	13	12	5	19	12	3	0	.78
Fort Union	69.29	82.45	67.35	73.03	89	58	31	1	0	4	8	38	17	21	4	23	8	11	0	3.39
Cantonment Burgwin	69.29	82.45	67.35	73.03	89	58	31	14	0	1	0	65	0	1	0	21	10	7	0	.51
Fort Massachusetts	62.87	76.93	60.00	66.59	89	52	37	18	8	7	8	10	3	11	15	11	20	9	0	2.19
Fort Defiance	61.06	85.71	63.35	70.04	95	50	45	9	0	3	6	36	23	13	3	22	9	6	0	2.14
Fort Yuma	88.80	108.12	91.09	96.00	116	89	36	0	11	4	51	1	23	1	2	16	15	2	0	.48
San Diego	69.64	82.45	71.06	74.39	94	60	34	0	10	20	2	2	31	28	0	22	9	0	0	0
Fort Tejon	70.00	90.07	79.22	79.77	97	61	36	0	9	0	20	0	12	0	35	31	0	0	0	0
Fort Miller	79.54	97.74	87.64	88.29	106	70	36	11	0	0	3	17	20	30	12	26	5	0	0	0
San Francisco	54.22	61.77	53.03	56.34	66	50	16	0	0	0	0	0	89	12	1	13	18	0	0	0
Benicia Barracks	57.09	81.90	63.13	67.37	96	50	46	0	0	0	0	0	0	93	0	31	0	0	0	0
Fort Humboldt	58.09	64.64	58.51	60.41	71	53	18	16	2	0	6	0	5	0	12	18	13	0	0	0
Fort Jones	64.41	90.70	72.58	75.90	103	56	47	18	0	0	0	3	4	64	4	30	1	0	0	0
Fort Orford	56.32	63.97	53.87	58.05	69	50	19	44	0	0	8	0	0	0	7	21	7	4	0	1.38
Fort Lane	65.06	87.16	71.45	74.55	102	52	50	3	12	4	8	4	24	11	25	31	1	0	0	0
Fort Vancouver	61.87	74.16	62.32	66.11	85	51	34	1	0	1	3	7	3	36	23	23	8	6	0	2.89
Fort Steilacoom	56 26	72.74	60.06	63.08	88	50	38	2	2	5	0	7	20	53	4	19	12	5	0	6.55

* This quantity, though unusually great, appears correctly measured.

MONTH OF AUGUST, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTIONS, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence	64.93	74.06	67.25	68.74	83	51	32	4	8	7	13	20	14	7	29	15	16	9	0	9.96
Fort Hamilton	71.77	77.26	70.68	73.23	87	64	23	8	11	1	11	3	23	0	26	17	14	6	0	5.59
Fort Columbus	69.12	76.67	69.45	71.75	84	54	30	5	2	3	14	4	18	11	36	17	14	4	0	7.60
West Point	65.03	74.19	70.38	70.86	84	56	28	43	0	0	5	30	5	7	3	17	14	8	0	11.26
Fort Ontario	65.30	71.45	64.93	67.22	88	55	33	8	3	12	8	12	13	24	12	16	15	12	0	1.42
Allegheny Arsenal	63.19	78.32	65.83	69.11	89	49	40	17	8	9	5	9	11	18	16	13	18	8	0	1.60
Carlisle Barracks	64.68	75.00	68.19	69.29	85	53	32	1	2	6	5	20	34	21	10	22	9	6	0	2.55
Fort Delaware	67.19	78.63	70.80	72.21	85	50	35	6	4	1	19	3	17	16	27	22	9	7	0	6.29
Fort McHenry	70.09	79.26	72.64	73.99	91	62	29	11	4	7	7	11	9	26	18	18	13	9	0	4.88
Fort Monroe	74.32	78.51	75.61	76.15	88	68	20	1	25	12	7	1	28	9	5	19	12	8	0	6.19
Fort Moultrie	78.96	85.29	81.32	81.85	96	72	24	12	5	13	4	32	17	5	5	18	13	8	0	7.54
Fort Capron	81.00	85.94	82.32	84.09	87	77	10	3	1	13	30	15	9	16	3	23	8	16	0	6.24
Key West Barracks	82.97	86.13	83.90	84.26	88	80	8	5	3	18	19	15	11	12	7	12	19	8	0	2.50
Fort Myers	79.96	87.35	80.13	82.81	94	73	21	4	2	7	11	7	21	26	15	19	12	11	0	2.84
Fort Dallas	80.64	87.81	83.13	83.86	92	78	14	0	8	23	15	23	3	7	3	22	9	2	0	1.20
Fort Brooke	80.51	87.19	80.77	82.82	94	75	19	7	2	11	22	13	11	16	11	23	8	13	0	8.30
Barrancas Barracks	78.93	85.93	84.45	83.10	96	74	22	12	2	6	7	7	16	10	31	8	23	9	0	7.15
Mount Vernon Arsenal	77.93	87.70	78.38	81.33	94	72	22	13	8	8	14	11	13	12	14	13	18	13	0	5.74
New Orleans	81.93	85.55	84.19	83.88	90	78	12	17	9	9	18	7	22	1	9	19	12	9	0	16.12
Baton Rouge	77.22	86.70	80.22	81.38	92	73	19	24	6	16	2	28	2	11	4	9	22	8	0	14.05
Fort Washita	77.93	91.96	81.54	83.81	106	66	40	3	30	13	16	19	9	0	0	6	25	10	0	2.85
Fort Smith	73.06	87.00	79.51	79.85	98	59	39	8	12	46	6	4	6	4	4	19	12	7	0	.23
Fort Gibson	75.06	94.03	83.61	84.23	102	65	37	3	0	9	9	30	17	9	16	15	16	8	0	3.50
Jefferson Barracks	70.19	86.32	74.88	79.13	98	59	39	0	29	0	27	0	13	1	23	22	9	9	0	5.93
St. Louis Arsenal	66.23	81.94	72.00	73.39	97	55	42	6	12	2	5	18	29	8	13	22	9	6	0	5.74
Newport Barracks	64.87	77.45	72.06	71.48	88	54	34	6	17	2	1	20	16	20	11	12	19	3	0	1.37
Fort Mackinac	57.32	66.29	56.80	60.13	74	44	30	11	3	2	7	3	8	34	25	18	13	9	0	2.45
Fort Brady	57.93	68.45	59.20	61.86	89	45	44	14	1	0	4	31	16	0	27	14	17	5	0	2.19
Fort Snelling	61.41	76.12	66.09	67.87	95	51	44	26	7	1	6	16	11	4	22	22	9	4	0	1.09
Fort Ripley	59.99	70.31	60.40	63.56	92	49	43	24	9	4	2	19	7	10	17	14	17	4	0	2.11
Fort Ridgely	61.06	76.45	61.93	66.48	97	48	49	3	4	6	4	8	19	29	7	21	10	5	0	1.33
Fort Leavenworth	66.96	79.00	71.38	72.44	91	55	36	2	11	19	21	20	11	6	4	15	16	11	0	6.73
Fort Riley	70.45	83.71	74.26	76.14	101	56	45	7	1	5	4	33	12	24	7	11	20	10	0	4.90
Fort Kearny	65.19	80.09	68.45	71.24	93	52	41	19	13	13	6	26	3	10	3	17	14	9	0	2.14
Fort Laramie	62.93	85.77	67.25	71.98	98	54	44	11	11	43	5	4	1	8	8	19	12	4	0	2.52
Fort Pierre	65.93	83.12	68.38	72.48	102	55	47	10	5	23	20	8	3	1	13	22	9	4	0	.32
Fort Arbuckle	75.12	92.48	80.25	82.62	106	62	44	12	7	30	21	17	3	2	1	24	7	13	0	10.77
Fort Belknap	81.16	98.45	89.35	89.65	108	70	38	17	8	12	5	33	9	8	1	21	10	11	0	6.85
Fort Chadbourne	75.06	94.51	82.29	83.94	104	66	38	3	6	17	28	38	0	1	0	20	11	3	0	3.43
Fort McKavett	78.01	95.06	82.50	85.26	104	72	32	1	5	2	20	46	15	4	0	23	8	3	0	.35
Fort Mason	78.93	95.35	86.30	86.68	103	71	32	0	2	3	39	30	16	3	0	26	5	3	0	2.00
Fort Lancaster	77.54	92.74	80.54	83.60	101	68	33	3	1	3	10	68	0	1	2	6	25	6	0	3.91
Fort Brown	81.09	91.83	82.12	85.01	95	77	18	2	3	15	56	17	0	0	0	23	8	4	0	.58
Ringgold Barracks	82.93	98.51	83.48	88.30	101	78	23	1	4	5	76	7	0	0	0	29	2	2	0	1.98
Fort McIntosh	80.09	98.90	89.87	89.62	103	77	26	3	3	13	52	21	1	0	0	21	10	3	0	11
Fort Duncan	81.61	100.32	89.39	90.44	109	77	32	0	0	1	81	0	0	0	6	6	25	2	0	.87

MONTH OF AUGUST, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Clark	82.90	93.52	88.52	88.31	99	79	20	0	3	56	15	17	0	2	0	30	1	3	0	.04
Fort Davis	70.48	83.35	71.35	75.06	97	57	40	4	2	3	0	11	14	4	11	15	16	7	0	8.19
Fort Bliss	72.55	95.59	77.16	81.76	103	62	41	2	19	18	18	12	9	11	4	18	13	8	0	3.38
Fort Fillmore	78.09	92.61	79.84	83.51	100	70	30	0	0	25	21	18	10	19	0	16	15	7	0	2.48
Fort Thorn	72.22	98.12	73.90	81.41	107	62	45	1	6	17	15	0	13	27	11	14	17	3	0	1.55
Fort Craig	76.00	95.74	84.74	85.49	103	73	30	1	0	13	8	44	10	16	1	21	10	4	0	.97
Fort Stanton	68.32	75.35	68.61	70.76	84	61	23	0	4	11	6	1	10	12	7	2	29	17	0	3.62
Albuquerque	71.03	95.87	74.00	80.28	103	63	40	4	6	7	6	40	4	25	1	18	13	6	0	1.23
Santa Fé	69.22	77.80	68.74	71.92	92	60	32	9	15	18	17	7	7	5	12	15	16	14	0	7.08
Fort Union	67.30	74.13	63.63	67.35	88	47	41	12	2	1	3	24	14	22	14	17	14	10	0	6.77
Cantonment Burgwin	58.87	80.52	60.03	66.44	93	47	46	17	0	0	1	65	2	2	1	15	16	13	0	.70
Fort Massachusetts	56.45	74.48	55.10	62.01	89	44	45	15	9	6	18	12	8	11	7	6	25	7	0	3.30
Fort Defiance	60.12	78.79	59.00	65.97	87	50	37	3	3	1	6	41	18	16	5	19	12	8	0	3.07
Fort Yuma	85.55	105.81	88.74	93.36	115	71	44	0	14	5	43	6	20	3	2	31	0	0	0	0
San Diego	68.58	83.16	69.00	73.58	99	60	39	3	11	15	10	7	21	22	4	17	14	0	0	0
Fort Tejon	67.90	84.90	75.03	75.94	98	60	38	0	2	0	18	0	11	0	33	30	1	1	0	30
Fort Miller	76.19	93.74	84.61	84.95	102	68	34	8	0	1	18	19	19	15	13	17	14	0	0	0
San Francisco	54.35	60.60	53.58	56.17	70	50	20	0	0	0	0	0	78	15	0	8	23	0	0	0
Benicia Barracks	58.29	78.45	61.45	66.06	96	53	43	0	0	0	0	0	0	93	0	31	0	0	0	0
Fort Humboldt	57.12	64.00	57.96	59.69	72	54	18	15	4	0	2	2	6	0	17	12	19	0	0	0
Fort Jones	60.00	94.64	71.06	75.23	106	45	61	7	0	0	1	1	6	74	4	29	2	1	0	.20
Fort Vancouver	58.81	71.90	61.74	64.15	83	54	29	4	6	0	6	3	9	21	20	20	11	1	0	.08
Umpqua City	56.38	64.16	54.90	58.48	71	50	21	0	6	2	5	1	1	5	60	16	15	0	0	0
Fort Steilacoom	58.70	75.06	60.58	64.70	88	53	35	8	1	6	1	3	11	50	13	16	15	4	0	2.23

MONTH OF SEPTEMBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence	58.90	70.23	62.66	63 93	89	47	33	12	4	8	18	14	27	6	1	20	10	7	0	4.20
Fort Hamilton	65.63	72.33	66.53	68.16	82	52	30	4	12	4	20	2	13	7	28	17	13	5	0	4.34
Fort Columbus	62.56	72.36	65.06	66.66	81	41	40	5	16	1	19	13	27	4	7	17	13	7	0	3.99
West Point	62 83	70.46	66.03	66.44	81	53	28	27	2	1	4	37	7	3	9	18	12	9	0	4.52
Fort Ontario*	57.80	68.80	69.08	65.22	86	45	41	7	3	2	11	22	8	21	1	17	8	8	0	3.37
Allegheny Arsenal	55.03	73.66	58.50	62.39	89	42	47	8	8	6	11	11	15	19	12	15	15	9	0	1.95
Carlisle Barracks	57.56	74.13	64.56	65.41	92	40	52	2	0	2	11	29	29	7	8	24	6	6	6	1.15
Fort Delaware	63.60	74.15	64.83	67.62	88	49	39	10	10	4	14	15	13	12	8	22	8	4	0	3.35
Fort McHenry	63.43	74.63	67.46	68.50	88	48	40	9	11	19	11	7	13	12	8	21	9	8	0	2.83
Fort Monroe	68.73	73.00	70.23	70.65	85	54	31	2	29	6	8	8	23	1	9	22	8	5	0	7.67
Fort Moultrie	70.13	78.90	73.90	74.31	85	54	31	9	18	21	12	18	3	4	4	24	6	5	0	1.32
Fort Capron	80.37	83.10	79.47	80.98	89	72	17	7	42	18	5	3	6	6	3	24	6	16	0	2.80
Key West Barracks	80.76	83.50	82.26	82.24	87	77	10	5	18	42	5	4	7	8	1	15	15	12	0	8.45
Fort Myers	76.10	86.60	76.46	79.70	99	66	33	15	15	19	9	4	4	17	7	18	12	7	0	2.00
Fort Dallas	78.40	84.93	80.80	81.37	88	74	14	0	35	24	4	3	6	18	1	17	13	8	0	8.40
Fort Brooke	74.60	87.10	78.03	79.91	92	59	33	3	22	30	9	6	1	17	4	26	4	5	0	3.80
Barrancas Barracks	70.60	81.73	73.50	75.15	88	51	37	24	5	5	10	4	6	3	32	13	17	5	0	2.30
Mount Vernon Arsenal	70.83	82.04	71.04	74.64	92	53	39	9	12	22	26	3	5	0	13	18	12	3	0	1.25
New Orleans	77.40	80.46	79.13	78.99	87	62	25	12	15	24	26	2	3	0	6	24	6	8	0	3.20
Baton Rouge	69.83	82.03	73.26	75.04	91	51	40	17	33	15	2	2	1	10	10	12	18	7	0	2.04
Fort Washita	65.43	78.60	68.93	70.98	94	42	52	16	6	22	8	17	3	6	1	7	23	8	0	4.18
Fort Smith	60.93	78.26	67.73	68.97	90	36	54	11	9	24	4	12	8	12	5	20	10	6	0	1.83
Fort Gibson	62.90	82.30	71.36	72.18	92	36	56	13	18	8	9	18	12	6	6	17	13	5	0	1.89
Jefferson Barracks	64.25	79.57	66.80	70.21	95	40	55	0	15	0	42	0	22	0	11	23	7	8	0	3.20
St. Louis Arsenal	58.03	75.27	63.67	65.66	90	38	52	9	2	1	7	35	16	1	19	20	10	5	0	2.63
Newport Barracks	59.90	71.53	65.40	65.61	86	40	46	6	3	7	15	16	10	22	11	13	17	9	0	1.97
Fort Mackinac	51.00	57.83	50.73	53.18	76	32	44	10	5	4	10	7	10	18	26	10	20	14	0	2.89
Fort Brady	50.70	60.33	51.63	54.22	86	37	49	12	4	1	15	38	13	0	7	24	6	12	0	8.36
Fort Snelling	51.66	68.20	58.33	59.39	89	28	61	11	4	1	16	11	16	9	22	18	12	4	0	3.24
Fort Ripley	49.63	62.23	51.96	54.60	84	27	57	15	9	3	3	19	5	18	18	17	13	3	0	1.36
Fort Ridgely	48.66	67.40	53.96	56.67	90	22	68	0	8	8	5	0	15	37	8	19	11	3	0	1.00
Fort Leavenworth	57.70	73.36	63.50	64.85	89	30	59	3	0	2	7	48	13	3	14	22	8	6	0	3.27
Fort Riley	57.77	80.17	65.97	67.97	101	28	73	17	4	0	1	34	13	16	5	19	11	2	0	1.10
Fort Kearny	52.33	72.26	56.86	60.48	94	29	65	18	0	2	3	5	5	33	23	13	17	3	0	1.92
Fort Laramie	47.13	73.66	57.10	59.29	94	31	63	17	5	23	3	4	2	24	12	21	9	2	0	.23
Fort Pierre	51.03	73.90	58.16	61.03	99	31	68	21	1	9	15	10	2	14	18	26	4	3	0	.70
Fort Arbuckle	63.13	77.56	66.70	69.13	92	40	52	15	12	23	13	25	0	2	0	25	5	7	0	6.73
Fort Belknap	68.56	79.30	70.06	72.64	93	50	43	19	8	8	9	27	9	5	5	19	11	9	0	10.20
Fort Chadbourne	63.70	78.46	69.96	70.71	94	49	45	8	28	8	8	34	3	1	0	15	15	12	0	5.89
Fort McKavett	68.86	79.30	69.96	72.70	96	50	46	2	22	5	27	21	8	3	1	17	13	9	0	6.47
Fort Mason	70.43	80.70	72.70	74.61	93	51	42	1	10	12	15	28	19	4	1	16	14	8	0	9.22
Fort Lancaster	66.63	79.06	69.53	71.77	90	50	40	8	5	9	10	45	0	4	1	3	27	5	0	6.56
Fort Brown	77.06	84.10	78.23	79.79	94	61	33	8	12	24	36	3	0	1	6	10	20	14	0	3.25
Ringgold Barracks	75.06	85.83	76.56	79.16	101	56	45	13	7	13	52	1	0	4	0	19	11	10	0	1.48
Fort McIntosh	75.50	87.80	80.30	81.22	100	61	39	9	9	18	38	11	2	1	2	11	19	10	0	1.52
Fort Duncan	73.60	86.63	78 26	79.19	99	54	45	1	0	3	56	0	0	1	3	26	1	6	0	2.76

MONTH OF SEPTEMBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy	Rain.	Snow.	
Fort Clark	73.60	82.96	77.46	78.00	92	58	34	5	0	36	15	26	2	4	2	25	5	9	0	2.71
Fort Davis	62.13	75.53	64.86	67.53	91	40	51	4	11	0	0	5	14	5	5	21	9	10	0	4.62
Fort Bliss	63.80	78.66	66.83	69.76	90	55	35	4	17	19	16	12	14	7	1	16	14	5	0	7.00
Fort Fillmore	70.26	82.60	73.73	75.53	90	50	40	0	0	1	17	35	17	19	0	11	19	8	0	2.61
Fort Thorn	59.50	81.56	65.66	68.90	94	47	47	2	3	9	11	0	28	25	12	20	10	7	0	6.35
Fort Craig	71.30	77.93	71.50	73.57	92	56	36	11	1	7	6	42	8	8	7	21	9	5	0	6.32
Fort Stanton	57.53	66.83	59.10	61.15	78	45	33	0	4	28	4	0	11	19	0	3	27	10	0	2.81
Albuquerque	63.00	89.66	66.06	72.90	95	50	45	2	0	18	1	27	7	35	0	19	11	3	0	1.12
Santa Fé	61.96	68.60	62.53	64.36	80	52	28	4	9	11	17	11	21	8	9	18	12	8	0	2.52
Fort Union	53.10	68.50	53.46	58.35	85	42	43	12	6	3	15	21	12	6	15	22	8	5	0	4.04
Cantonment Burgwin	49.13	71.87	50.80	57.25	85	37	48	15	1	0	1	68	0	0	0	20	10	7	0	.40
Fort Massachusetts	47.10	64.43	47.46	52.96	74	37	37	16	12	9	7	12	7	13	8	16	14	5	0	1.55
Fort Defiance	48.40	71.27	50.36	56.67	79	43	36	1	2	4	0	29	35	19	0	20	10	6	0	1.75
Fort Yuma	79.86	98.43	84.20	87.49	106	74	32	1	14	5	28	4	16	9	13	25	5	3	0	.36
San Diego	64.20	78.53	67.73	70.16	88	60	28	3	9	16	10	6	22	19	5	13	17	2	0	.05
Fort Tejon	61.10	78.01	67.26	68.79	87	50	37	0	1	0	29	0	5	0	34	27	3	4	0	08
Fort Miller	69.43	89.40	79.20	79.34	98	64	34	8	3	10	24	9	8	22	6	14	16	0	0	0
San Francisco	55.63	63.80	56.26	58.56	80	52	28	0	0	0	0	0	75	14	1	13	17	0	0	0
Benicia Barracks	56.93	79.86	62.36	66.05	96	54	42	0	0	3	2	0	3	80	2	30	0	0	0	0
Fort Humboldt	52.23	62.33	56.26	56.97	70	46	24	8	6	1	4	0	9	0	11	17	13	6	0	.20
Fort Jones	47.76	79.93	63.16	70.28	90	33	57	2	0	0	1	3	33	50	1	22	8	0	0	0
Fort Vancouver	57.73	71.83	58.73	62.76	85	52	33	6	1	4	1	1	11	13	18	19	11	3	0	2.37
Umpqua City	55.16	65.26	55.86	58.76	84	49	35	3	3	9	20	2	2	3	32	19	11	4	0	0
Fort Steilacoom	53.03	72.70	56.53	60.75	85	48	37	12	3	7	1	15	4	34	14	19	11	5	0	1.90

* Twenty-five days only.

MONTH OF OCTOBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Hamilton	52.48	62.00	53.80	56.09	78	36	42	24	16	6	3	2	8	4	30	20	11	5	0	.45
Fort Columbus	49.30	60.39	51.51	53.73	69	32	37	5	19	2	7	2	18	12	28	16	15	4	0	1.70
West Point	50.80	58.80	53.77	54.45	70	39	31	18	4	1	0	21	4	5	19	19	12	6	0	1.35
Allegheny Arsenal	45.22	59.09	45.00	49.77	76	29	47	26	15	6	3	10	13	15	3	13	18	19	1	2.05
Carlisle Barracks	43.90	59.64	48.58	50.70	78	26	52	4	4	1	14	3	11	22	31	23	8	5	0	2.15
Fort Delaware	50.49	61.48	53.75	55.24	73	36	37	8	13	7	6	7	29	13	12	23	8	3	1	1.10
Fort McHenry	50.67	63.35	56.58	56.86	76	39	37	11	10	10	13	12	10	19	8	18	13	10	0	.77
Fort Monroe	58.93	64.32	60.54	61.26	74	47	27	15	26	10	3	6	21	6	9	23	8	5	0	2.80
Fort Moultrie	61.09	70.74	64.93	65.58	80	49	31	20	23	11	1	13	7	5	10	12	19	7	0	2.18
Fort Capron	76.38	79.03	75.80	77.07	83	63	20	15	32	26	12	1	0	4	3	23	8	11	0	6.72
Key West Barracks	77.32	81.13	78.42	78.95	87	72	15	10	40	38	5	0	0	0	0	18	13	10	0	7.14
Fort Myers	72.55	82.45	73.42	76.14	89	60	29	16	13	8	0	0	1	39	25	15	16	3	0	1.10
Fort Dallas	76.10	82.35	78.35	78.93	86	68	18	11	38	25	10	4	2	1	2	22	9	5	0	10.10
Fort Brooke	67.51	81.06	72.41	73.66	89	51	38	11	21	44	5	0	2	2	8	26	5	3	0	.11
Barrancas Barracks	62.61	73.61	67.86	68.02	84	44	37	30	3	7	14	3	3	2	31	13	18	5	0	2.86
Mount Vernon Arsenal	59.70	75.67	65.54	66.97	85	41	41	8	12	24	29	9	0	6	12	13	18	6	0	.70
New Orleans	67.90	72.64	71.00	70.50	74	53	21	10	11	38	13	0	5	0	15	16	15	7	1	2.29
Baton Rouge	61.74	74.58	66.48	67.59	83	43	40	7	39	31	5	4	1	4	2	8	23	5	0	4.43
Fort Washita	57.19	72.35	62.70	64.08	83	38	45	5	10	1	27	14	7	8	8	11	17	10	0	4.20
Fort Smith	53.38	72.93	60.61	62.30	89	32	57	11	1	29	7	21	2	12	1	21	10	6	0	3.39
Fort Gibson	55.74	73.09	63.25	63.93	86	30	56	23	21	15	6	9	3	0	16	16	15	5	0	6.60
Jefferson Barracks	54.32	71.84	59.64	61.93	88	29	59	0	15	2	56	1	8	0	9	21	10	4	0	2.41
St. Louis Arsenal	49.90	67.87	56.81	58.19	84	28	56	5	8	1	9	28	27	7	8	19	12	4	0	1.67
Newport Barracks	49.32	64.00	56.77	56.69	78	34	44	16	3	8	10	7	19	27	3	13	18	4	0	2.07
Fort Snelling	45.09	58.93	50.70	51.57	85	22	63	6	6	7	29	13	11	3	15	13	18	6	0	3.97
Fort Ripley	39.77	52.87	44.29	45.64	71	21	50	16	13	8	4	22	5	4	15	18	13	4	0	3.86
Fort Ridgely	72.48	57.87	48.12	49.49	86	22	64	1	3	8	5	1	18	15	17	13	18	7	0	4.21
Fort Leavenworth	49.80	65.90	58.35	58.01	82	28	54	1	3	5	17	45	13	5	4	13	18	6	0	2.83
Fort Riley	52.81	69.06	59.16	60.34	85	27	58	39	1	3	0	4	11	33	9	13	18	7	0	1.99
Fort Kearny	45.00	62.35	52.38	52.38	86	24	62	14	1	0	1	10	6	31	30	16	15	6	0	5.50
Fort Laramie	41.06	63.33	47.86	50.75	86	26	60	11	2	25	1	4	2	43	7	18	13	0	3	.29
Fort Pierre	41.61	62.09	48.25	50.65	88	25	63	1	6	10	11	7	1	22	32	18	13	1	1	1.75
Fort Arbuckle	55.83	71.58	60.19	62.53	84	29	55	16	9	11	24	29	3	5	5	28	3	9	0	1.28
Fort Belknap	61.32	72.71	64.77	66.27	85	45	40	31	2	3	5	43	5	2	2	21	10	5	0	1.18
Fort Chadbourne	55.12	73.61	61.67	63.46	88	32	56	24	5	3	14	42	1	0	3	19	12	5	0	2.28
Fort McKavett	59.38	72.54	61.25	64.39	86	38	48	18	16	3	25	25	3	0	0	19	12	1	0	3.08
Fort Mason	61.74	74.38	62.25	66.13	86	41	45	21	3	6	7	30	22	4	6	19	12	5	0	.85
Fort Lancaster	55.20	73.55	61.64	63.46	86	31	55	18	3	3	3	53	2	1	0	11	20	4	0	3.15
Fort Brown	71.80	79.29	73.48	74.85	89	52	37	13	7	6	40	10	2	1	11	18	13	9	0	5.73
Ringgold Barracks	66.03	79.96	69.38	71.79	90	45	45	12	25	12	39	1	0	3	1	19	12	10	0	6.60
Fort McIntosh	69.32	78.32	72.83	73.49	89	55	34	11	13	11	37	8	1	0	12	14	17	8	0	7.82
Fort Duncan	67.71	78.93	70.26	72.30	89	46	43	7	0	1	37	1	1	0	12	9	22	4	0	2.37
Fort Clark	64.32	73.06	69.64	69.00	84	48	36	6	8	24	28	14	0	7	6	27	4	6	0	1.80
Fort Davis	53.13	72.29	57.97	61.13	83	36	47	20	0	0	0	3	8	11	9	27	4	1	0	.50
Fort Bliss	56.66	73.10	59.19	62.78	83	47	36	6	3	3	11	8	21	21	17	20	11	0	0	0
Fort Fillmore	58.13	76.61	72.19	69.64	86	44	42	0	0	22	8	2	5	15	9	26	5	0	0	0

MONTH OF OCTOBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Thorn	41.29	73.96	54.67	56.64	84	19	65	12	9	11	0	0	13	21	25	28	3	1	0	.25
Fort Craig	56.06	65.93	59.93	60.65	89	42	38	14	3	3	6	25	10	17	15	31	0	1	0	.06
Fort Stanton	48.96	61.23	53.13	54.44	70	33	37	2	6	12	1	1	5	32	11	21	10	1	0	.19
Fort Randall	43.93	65.93	48.90	52.92	94	20	74	10	8	9	6	11	18	6	25	23	8	3	0	1.42
Albuquerque	43.43	73.61	50.55	55.86	91	30	61	6	7	49	3	13	5	8	2	27	4	1	0	.10
Santa Fé	47.90	57.06	48.87	51.27	69	37	32	8	11	11	8	7	15	16	17	21	7	2	1	.99
Fort Union	37.58	59.12	42.67	46.43	73	23	50	20	5	3	10	9	9	14	23	26	5	0	3	0
Cantonment Burgwin	33.19	54.90	38.09	42.06	70	19	51	16	1	1	1	71	0	1	0	9	22	2	5	.18
Fort Massachusetts	32.16	47.03	35.29	38.16	64	11	53	23	11	2	2	16	8	12	16	18	13	2	0	.95
Fort Defiance	29.55	59.16	43.32	44.01	70	17	53	9	7	4	0	20	20	30	3	26	5	0	0	0
Fort Yuma	63.32	82.09	70.00	71.80	99	51	48	5	13	1	18	1	15	6	34	31	0	0	0	0
San Diego	51.03	72.22	58.13	60.45	83	38	45	4	16	9	4	3	19	28	10	22	9	0	0	0
Fort Tejon	48.48	62.80	51.38	54.22	84	29	55	0	1	0	29	0	1	0	45	26	5	3	0	.05
Fort Miller	54.20	70.90	61.66	62.25	85	42	43	9	15	16	8	3	12	21	9	9	22	1	0	.20
San Francisco	52.64	63.58	53.93	56.71	78	45	33	3	2	0	1	14	19	37	17	19	12	3	0	.33
Benicia Barracks	52.38	71.19	56.38	59.98	85	44	41	0	1	14	20	1	26	31	0	26	5	4	0	.46
Fort Humboldt	47.51	72.25	52.54	52.43	63	35	28	10	5	4	14	2	6	0	9	16	15	11	0	2.69
Fort Jones	28.35	59.74	47.96	48.58	82	25	57	3	3	0	0	42	16	26	3	7	24	1	0	.13
Fort Lane	55.20	73.55	61.64	63.46	86	31	55	18	3	3	3	53	2	1	0	12	19	2	0	3.15
Fort Yamhill	44.29	56.03	47.29	49.20	72	29	43	1	7	4	15	1	36	4	7	9	22	17	0	6.38
Fort Vancouver	47.68	57.48	49.45	51.53	78	41	37	3	1	10	16	10	12	12	6	13	18	10	0	4.81
Fort Umpqua	47.64	57 22	50.32	51.72	63	38	25	3	14	18	13	7	21	6	11	13	18	0	0	0
Fort Steilacoom	46.93	54.80	47 45	51.39	80	30	50	10	9	7	6	19	17	12	13	7	24	19	0	6.16

MONTH OF NOVEMBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cdy.	Rain.	Snow.	
Fort Hamilton	39.33	47.86	42.80	43.33	61	27	34	13	3	0	7	1	20	4	42	16	14	6	0	2.91
Fort Columbus	38.96	47.80	41.20	42.65	69	30	39	10	20	2	6	3	24	1	24	11	19	6	0	2.50
West Point	40.76	48.33	44.36	44.48	62	31	31	21	1	1	6	23	5	7	26	18	12	8	0	2.50
Allegheny Arsenal	36.53	45.80	38.00	40.11	66	22	44	9	4	5	9	12	14	27	10	12	18	9	3	1.97
Carlisle Barracks	32.56	46.40	37.03	37.99	69	22	47	1	3	2	13	6	14	16	34	22	8	6	2	2.16
Fort Delaware	40.71	49.90	44.13	44.91	68	31	37	3	5	2	10	5	15	10	33	21	9	6	1	2.10
Fort McHenry	40.23	52.56	45.73	46.17	70	30	40	6	8	9	9	7	14	23	14	17	13	9	0	1.85
Fort Monroe	47.86	57.86	51.96	52.56	74	35	39	1	17	5	15	1	21	4	21	19	11	8	0	2.25
Fort Moultrie	54.20	64.06	58.43	58.89	75	40	35	26	14	12	1	13	18	2	1	15	15	6	0	2.25
Fort Capron	72.10	76.70	73.96	74.25	86	60	26	7	11	21	12	7	4	1	13	17	13	9	0	2.47
Key West Barracks	74.70	80.26	75.23	76.73	88	68	20	35	7	35	8	3	0	0	0	20	10	5	0	2.13
Fort Myers	66.23	80.16	70.70	72.36	89	55	34	13	6	16	1	17	5	11	18	14	16	2	0	.26
Fort Dallas	73.43	79.13	75.76	76.10	85	64	21	7	23	28	16	9	4	3	0	27	3	2	0	.50
Fort Desmand	63.63	80.10	70.50	71.21	89	49	40	22	14	31	1	5	1	7	0	18	12	4	0	1.33
Fort Brooke	69.93	77.40	69.56	70.29	85	56	29	9	28	15	27	3	5	2	1	25	5	3	0	.44
Barrancas Barracks	55.90	66.20	59.53	60.54	76	36	40	33	6	1	9	9	6	2	24	9	21	8	0	7.07
Mount Vernon Arsenal	51.56	66.83	57.66	58.68	79	34	45	23	11	8	14	11	4	2	16	13	17	15	0	11.25
New Orleans	59.93	65.13	64.16	63.07	82	45	37	30	15	13	18	5	1	0	8	18	12	9	0	4.65
Baton Rouge	52.43	66.43	58.63	59.16	81	34	47	1	30	13	9	11	5	8	10	12	18	10	0	9.13
Fort Washita	40.00	57.00	48.63	48.54	73	19	54	9	9	9	15	13	4	10	8	15	15	1	0	1.78
Fort Smith	38.13	55.53	44.73	46.13	71	21	50	7	3	31	11	10	12	12	12	22	8	5	0	3.40
Fort Gibson	38.56	54.83	43.26	45.55	76	16	60	22	58	8	10	0	0	0	12	17	13	3	0	3.10
Jefferson Barracks	35.23	55.63	41.74	44.20	75	24	51	0	12	28	20	0	4	3	23	20	10	6	0	6.07
St. Louis Arsenal	34.27	47.20	37.53	39.66	74	21	52	5	2	2	12	30	11	5	23	21	9	4	1	4.65
Newport Barracks	36.86	48.20	42.70	42.58	70	20	50	12	0	0	0	12	21	27	15	11	19	6	0	3.70
Fort Snelling	25.56	38.20	29.43	31.01	55	4	51	5	1	7	15	13	15	9	25	13	17	0	4	1.70
Fort Ripley	21.76	32.00	22.33	25.36	45	3	48	13	4	1	4	18	9	12	22	15	15	0	4	.72
Fort Ridgely	25.06	34.00	25.60	28.22	52	3	49	1	3	4	2	1	13	29	8	14	16	0	6	.89
Fort Leavenworth	30.36	42.96	37.30	36.87	58	9	49	16	6	8	14	17	6	11	12	17	13	3	3	3.13
Fort Riley	31.53	45.60	37.07	38.07	71	10	61	40	0	0	0	16	7	23	4	17	13	2	7	1.96
Fort Kearny	25.51	39.41	29.30	31.40	56	11	45	20	1	3	5	3	0	20	38	17	13	0	4	.40
Fort Laramie	24.26	42.03	38.66	31.65	60	— 3	63	12	1	15	3	1	0	50	5	21	9	1	3	.21
Fort Pierre	22.66	39.63	27.80	30.02	57	— 5	62	0	9	12	11	15	2	19	20	15	15	1	0	1.05
Fort Arbuckle	35.66	56.30	43.86	45.27	79	14	65	20	9	10	13	21	2	6	9	25	5	3	1	1.55
Fort Belknap	41.10	57.90	50.00	49.66	76	22	54	37	1	3	3	37	4	2	3	13	17	5	0	2.19
Fort Chadbourne	37.70	60.03	46.03	47.92	75	21	54	21	4	6	1	40	1	12	5	21	9	6	0	.88
Fort McKavett	45.46	60.96	50.06	52.16	73	27	46	7	18	3	19	20	8	9	6	21	9	1	0	.60
Fort Mason	49.50	64.60	51.00	55.03	80	27	53	11	14	6	7	24	18	8	2	21	9	2	0	.25
Fort Lancaster	42.03	62.50	48.83	51.12	76	27	49	14	5	7	5	39	1	4	0	9	21	2	0	.58
Fort Brown	62.40	72.73	65.60	66.91	86	49	37	17	6	10	7	24	0	1	25	16	14	7	0	1.45
Ringgold Barracks	57.70	69.30	59.16	61.05	85	42	43	16	14	12	11	12	3	7	15	15	15	3	0	1.15
Fort McIntosh	53.90	70.33	60.16	61.40	87	42	45	14	17	12	22	5	2	3	13	17	13	6	0	1.13
Fort Duncan	50.13	68.00	56.46	58.20	83	39	44	2	0	0	35	0	0	0	10	11	19	2	0	.24
Fort Clark	50.33	65.23	55.72	57.10	79	36	43	16	13	44	3	3	0	8	3	24	6	5	0	.58
Fort Davis	39.13	61.40	44.80	48.44	69	29	40	12	3	3	6	4	12	3	8	24	6	1	1	.11
Fort Bliss	43.40	62.50	51.33	52.45	70	40	30	4	5	9	8	4	15	29	16	21	9	2	0	.75

MONTH OF NOVEMBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	C'dy.	Rain.	Snow	Amount in inches.
Camp Colorado	41.13	63.29	46.63	50.35	77	21	56	15	4	0	4	6	8	5	0	20	10	0	0	0
Fort Fillmore	46.70	62.66	51.16	53.50	73	32	41	6	16	11	3	2	8	39	14	15	15	3	1	.27
Fort Thorn	30.40	61.03	41.40	44.27	73	15	58	13	1	2	2	0	2	20	50	17	13	2	1	.60
Fort Craig	33.96	57.96	38.76	43.56	72	21	51	13	16	11	5	11	9	6	17	23	7	3	0	.51
Fort Stanton	43.43	46.90	40.13	40.48	60	25	35	6	2	13	2	0	2	40	10	14	16	1	1	2.14
Fort Randall	25.53	39.43	28.03	30.99	58	4	54	17	3	16	6	9	8	10	20	15	15	0	3	.73
Albuquerque	27.33	57.56	34.10	39.66	73	20	53	31	9	30	2	9	4	5	0	20	10	1	1	.33
Santa Fe	31.36	40.56	32.93	34.95	49	12	37	8	16	11	16	5	8	17	9	20	10	0	8	2.18
Fort Union	22.51	41.72	26.24	30.15	60	6	54	13	17	3	10	7	7	10	22	21	9	0	3	.70
Cantonment Burgwin	17.87	40.00	24.23	27.37	51	2	49	23	0	0	0	61	0	1	0	19	11	0	1	.60
Fort Massachusetts	16.50	33.80	20.16	23.48	50	0	50	33	13	4	1	12	9	14	4	14	16	0	5	.79
Fort Defiance	15.80	41.20	31.27	29.42	55	0	55	5	3	6	1	8	22	35	10	18	12	0	3	.18
Fort Yuma	51.93	70.10	58.63	60.22	80	41	39	8	21	0	8	1	10	5	37	27	3	2	0	.19
San Diego	45.70	64.43	52.76	54.30	75	35	40	1	15	14	17	8	14	9	12	14	16	5	0	1 47
Fort Tejon	42.90	54.40	47.13	48.14	70	32	38	0	1	0	27	0	0	0	43	19	11	8	2	3.12
Fort Miller	46.03	61.46	51.20	52.91	77	39	38	4	7	35	13	2	7	13	9	8	22	6	0	1.49
San Francisco	48.66	57.00	50.60	52.08	64	11	53	3	7	0	8	5	28	28	11	17	13	5	0	1.57
Benicia Barracks	46.90	61.83	54.73	55.48	71	39	35	0	0	50	7	0	5	28	0	20	10	7	0	.98
Fort Humboldt	45.30	52.93	48.10	48.77	62	35	27	10	3	1	11	3	5	0	9	15	15	7	0	3.45
Fort Jones	30.00	50.26	34.63	38.29	69	20	49	6	0	0	1	50	29	3	1	8	22	3	3	1.78
Fort Yamhill	39.33	49.63	42.03	43.67	60	27	33	3	1	4	16	13	18	4	12	10	20	13	2	6.63
Fort Vancouver	39.15	49.95	41.20	43.45	68	26	42	2	7	19	13	0	2	24	7	14	16	14	0	6.62
Fort Umpqua	44.20	52.60	46.36	47.72	61	35	26	6	16	14	19	4	7	7	12	12	18	7	0	4.91
Fort Hoskins	37.83	49.37	39.23	42.14	61	26	35	1	5	11	0	1	4	29	21	12	18	12	0	6.25
Fort Steilacoom	39.33	50.76	41.40	43.83	61	25	39	9	17	5	4	12	24	11	8	3	27	15	1	2.98

MONTH OF DECEMBER, 1856.

STATIONS.	THERMOMETER							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.						RANGE.	DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair	Cldy	Rain	Snow	Amount in Inches.
Fort Hamilton	28.64	33.70	29.51	30.62	50	3	47	9	5	1	0	0	8	0	70	12	19	4	4	2.95
Fort Columbus	27.90	35.67	30.09	31.22	47	4	43	3	15	0	6	3	18	6	12	15	16	4	3	2.30
West Point	28.25	33.32	30.80	30.79	48	3	45	46	4	0	4	8	6	8	11	14	17	4	5	5.76
Allegheny Arsenal	21.51	32.03	26.45	27.67	49	2	51	3	12	13	4	8	12	32	9	12	19	6	1	1.34
Carlisle Barracks	22.61	33.10	26.20	27.31	50	20	30	2	7	1	8	2	3	12	56	22	9	4	0	2.80
Fort Delaware	30.70	35.00	31.50	32.40	48	9	39	11	8	6	10	5	0	22	28	19	12	2	0	1.20
Fort McHenry	29.96	39.83	33.06	34.28	56	12	44	16	6	7	2	5	7	35	15	17	14	4	0	2.05
Fort Monroe	36.13	44.71	39.32	40.38	65	15	50	0	11	2	9	0	25	3	40	19	12	5	2	3.63
Fort Moultrie	44.70	53.74	47.38	48.60	68	21	47	20	18	8	2	13	7	13	12	19	12	6	0	1.53
Fort Capron	61.45	69.97	64.77	65.40	80	30	50	9	9	14	3	7	9	11	24	19	12	8	0	.96
Key West Barracks	68.64	75.45	70.16	72.22	86	50	36	33	13	35	4	8	0	0	0	19	12	4	0	.44
Fort Myers	57.87	72.32	63.19	64.42	83	32	51	9	10	24	13	18	2	13	4	9	22	5	0	1.23
Fort Dallas	65.29	76.25	70.00	70.51	82	35	47	23	11	16	13	20	3	0	7	28	3	0	0	0
Fort Deynaud	55.00	73.06	61.64	63.23	84	30	54	49	4	17	1	11	0	6	5	17	14	7	0	3.00
Fort Brooke	55.06	67.03	59.35	60.48	80	29	51	21	28	19	7	2	8	2	3	25	6	6	0	1.64
Barrancas Barracks	45.45	57.55	50.97	51.32	76	25	51	29	8	10	4	4	1	5	32	12	19	8	0	4.62
Mount Vernon Arsenal	41.58	58.48	47.83	49.29	76	24	52	25	8	6	14	10	8	2	20	15	16	10	0	5.87
New Orleans	51.00	56.41	55.00	54.13	76	35	41	28	19	11	8	12	3	5	7	20	11	11	0	4.75
Baton Rouge	45.03	58.35	50.58	51.31	76	28	48	9	26	27	10	9	7	3	2	12	19	7	0	5.78
Fort Washita	32.83	46.09	38.12	39.01	67	13	54	7	12	4	16	16	8	10	15	14	17	5	0	2.10
Fort Smith	30.70	42.61	34.77	36.02	69	16	53	9	12	38	5	11	4	13	1	20	11	5	0	3.93
Fort Gibson	28.29	42.35	31.25	33.96	60	10	50	32	15	15	2	6	0	5	16	21	10	5	0	1.20
Jefferson Barracks	24.64	41.80	30.77	32.40	57	7	50	0	18	42	10	0	2	3	18	19	12	6	1	3.02
Newport Barracks	24.93	31.96	29.25	28.71	50	0	50	7	4	4	14	16	19	22	7	9	22	9	5	4.63
Fort Snelling	3.64	15.77	6.90	8.71	35	−15	50	7	7	7	14	16	10	1	31	17	14	0	6	2.01
Fort Ripley	0.80	12.32	2.35	5.12	30	−22	52	15	14	2	3	10	15	15	19	16	15	0	7	1.68
Fort Ridgely	3.61	11.35	6.96	7.30	31	−12	43	4	5	6	3	3	6	19	16	13	18	0	7	4.38
Fort Leavenworth	17.48	27.35	22.80	22.54	47	− 3	50	21	10	14	9	6	8	7	18	16	15	1	5	1.35
Fort Riley	16.58	25.61	18.74	20.31	44	− 1	45	37	16	1	10	7	7	4	11	19	12	4	0	1.93
Fort Kearny	6.83	18.74	11.16	12.24	34	−14	48	25	2	0	0	5	4	27	30	15	16	0	5	1.35
Fort Laramie	18.29	28.83	19.41	22.71	55	− 9	64	8	5	21	0	0	2	55	2	14	17	0	3	.17
Fort Pierre	2.35	16.41	7.77	8.84	39	−15	54	12	1	21	7	6	5	17	20	16	15	0	2	.55
Fort Randall	1.77	16.12	5.83	8.91	34	−18	52	41	1	9	8	19	6	1	8	16	15	0	3	.66
Fort Arbuckle	30.54	43.32	33.80	35.88	66	11	55	25	7	8	18	17	1	6	11	26	5	4	3	3.02
Fort Belknap	34.03	48.90	40.51	41.14	70	18	52	31	5	0	9	16	10	5	17	17	14	1	2	.55
Fort Chadbourne	32.28	55.00	38.19	41.86	76	14	62	26	5	1	1	35	4	10	8	21	7	1	0	.11
Fort McKavett	43.67	58.03	44.12	48.60	78	25	53	8	13	0	2	36	7	8	19	25	6	0	1	.27
Fort Mason	41.09	56.61	44.00	47.24	77	25	52	25	7	2	2	14	23	10	10	22	9	1	1	.02
Fort Brown	54.06	67.70	58.22	59.99	79	34	45	13	11	2	10	30	4	5	18	20	11	2	0	.55
Fort Lancaster	32.00	56.74	41.32	43.32	75	11	64	17	1	3	10	33	3	3	8	13	18	0	0	0
Ringgold Barracks	46.61	66.03	55.38	56.00	83	25	58	11	10	7	15	21	1	3	22	20	11	2	0	.40
Fort McIntosh	44.49	66.20	53.25	54.61	82	24	58	19	15	3	29	16	1	1	8	20	11	3	0	.58
Fort Clark	43.16	62.26	49.64	51.68	74	29	45	28	5	36	11	3	0	9	1	6	25	0	0	0
Fort Thorn	18.00	50.25	32.00	33.41	64	4	60	11	3	0	2	1	2	25	49	27	4	1	0	.1
Fort Duncan	40.39	64.39	49.03	51.27	79	21	58	6	1	1	22	0	0	0	13	16	15	0	0	0
Fort Davis	33.32	57.81	39.81	43.64	72	14	58	0	2	3	1	5	26	17	1	23	8	0	0	0

MONTH OF DECEMBER, 1856.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Bliss	25.97	54.32	36.00	38.76	67	15	52	8	8	12	4	3	11	24	23	25	6	0	0	0
Fort Fillmore	25.93	58.87	39.19	41.33	73	17	56	15	22	3	1	0	5	35	12	27	4	0	0	0
Fort Craig	18.42	49.13	27.93	31.82	69	8	61	15	14	2	3	13	10	16	20	29	2	0	0	0
Fort Stanton	25.60	38.06	29.66	31.10	51	6	45	8	1	3	0	0	6	43	27	18	13	0	3	2.21
Camp Colorado	31.23	56.76	40.79	43.92	76	19	57	15	1	3	2	10	4	10	8	20	11	0	0	0
Camp Verde	33.35	57.19	38.70	43.08	75	12	63	9	4	3	11	12	15	7	15	21	10	0	0	0
Camp Moore	33.65	55.61	46.32	44.86	72	11	58	16	7	7	9	9	17	16	12	22	9	2	0	10
Albuquerque	14.38	43.61	26.77	28.25	65	5	60	55	6	21	1	5	1	2	2	26	5	0	2	.03
Santa Fé	14.22	31.40	17.55	21.05	48	0	48	2	25	19	13	2	11	15	6	22	9	0	7	.60
Fort Union	16.22	33.80	19.39	23.13	59	—13	72	9	4	1	11	6	4	9	49	25	6	0	1	.12
Cantonment Burgwin	6.26	28.90	11.00	15.39	47	—17	64	26	0	0	0	60	0	0	0	21	10	0	5	.55
Fort Massachusetts	5.80	23.64	8.74	12.72	39	15	24	29	5	0	4	15	18	18	4	16	15	0	4	.55
Fort Defiance	7.71	29.07	14.74	17.17	50	—10	60	3	3	9	4	3	14	38	19	22	9	0	3	.40
Fort Yuma	41.22	59.87	43.38	49.82	72	34	38	9	18	3	9	1	4	8	41	31	0	0	0	0
San Diego	37.55	59.22	46.03	47.61	73	27	46	2	14	12	6	7	25	12	15	21	10	5	0	1.20
Fort Tejon	35.87	49.19	37.80	40.97	68	24	44	3	3	4	40	9	1	1	23	20	11	4	4	6.54
Fort Miller	37.45	48.55	41.35	42.45	58	31	27	7	11	42	7	1	4	13	8	10	21	7	0	2.91
San Francisco	43.00	51.32	45.93	46.74	57	38	19	11	23	2	6	6	24	12	9	15	16	8	1	2.57
Benicia Barracks	38.64	54.13	43.61	45.46	64	33	31	0	3	67	14	0	0	9	0	20	11	8	1	1.91
Fort Humboldt	40.54	48.77	43.70	44.33	60	31	29	7	3	1	29	7	1	0	5	9	22	9	0	7.50
Fort Jones	22.00	34.29	26.61	27.63	49	3	46	2	0	0	1	28	51	10	1	28	3	7	4	8.93
Fort Yamhill	37.21	41.27	38.18	38.88	53	29	24	3	3	0	9	12	33	10	16	2	29	20	3	14.80
Fort Vancouver	35.38	41.55	36.00	37.64	49	29	20	0	8	19	29	5	3	9	0	7	24	13	4	15.37
Fort Umpqua	42.45	47.32	44.19	44.65	55	34	21	3	4	30	24	8	10	3	3	4	27	15	6	11.43
Fort Dalles	28.84	37.58	30.13	32.18	47	12	35	0	32	2	12	0	13	15	14	14	17	5	1	10.79
Fort Steilacoom	36.22	39.96	37.16	37.84	51	23	28	8	11	8	14	20	19	9	3	0	31	19	3	13.49
Fort Hoskins	36.03	42.03	37.51	38.52	52	26	26	3	29	3	1	0	1	1	49	6	25	21	0	15.97

MONTH OF JANUARY, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean	Max	Min	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cloy	Rain.	Snow.	
Fort Independence*.....	11.92	21.14	16.64	16.56	39	−13	52	11	5	0	2	1	3	5	13	7	7	2	3	2.29
Fort Hamilton.....	15.00	22.00	19.45	18.81	35	1	34	21	23	2	1	1	5	7	33	9	22	6	5	2.59
West Point.....	15.41	23.22	18.64	19.09	35	− 6	41	40	1	2	7	9	6	6	22	14	17	1	7	2.25
Fort Columbus.....	16.54	24.29	17.90	19.61	36	−5	41	12	19	4	3	0	9	13	36	17	14	1	6	3.20
Alleghany Arsenal.....	11.48	22.61	15.22	16.43	39	−12	51	23	8	3	5	12	16	23	3	12	19	1	7	1.86
Carlisle Barracks.....	11.26	23.45	15.61	16.77	49	46	96	4	13	3	4	7	0	8	50	12	19	1	8	2.50
Fort Delaware.....	17.90	25.50	22.61	22.00	38	0	38	7	17	1	12	5	3	2	45	16	14	4	3	1.00
Fort McHenry.....	17.61	28.90	23.61	23.37	42	−6	48	7	11	6	2	7	14	28	18	12	19	3	5	3.50
Fort Monroe.....	29.09	31.70	28.45	28.41	48	2	46	9	13	2	7	2	18	3	42	15	16	1	4	2.31
Fort Moultrie.....	36.45	46.06	39.96	40.82	67	15	52	29	11	5	2	11	9	6	18	17	14	6	1	2.11
Fort Capron.....	50.16	65.97	56.26	57.46	82	29	53	29	7	2	7	0	12	19	24	28	3	4	0	.55
Key West Barracks.....	63.16	69.64	64.19	65.66	83	44	39	5	13	14	2	5	0	1	0	26	5	3	6	.81
Fort Myers.....	51.00	65.91	57.42	58.11	77	32	45	32	4	3	0	9	6	33	6	19	12	3	0	.07
Fort Dallas.....	55.64	71.96	59.42	62.34	82	30	52	6	19	4	11	8	4	4	35	27	4	2	0	.20
Fort Deynaud.....	45.74	68.87	55.29	56.63	80	28	52	38	4	17	7	15	4	3	5	18	13	4	0	1.01
Fort Brooke.....	47.93	64.16	54.64	55.57	76	26	50	18	17	20	13	3	9	5	6	29	2	3	0	1.80
Barrancas Barracks.....	41.93	52.19	46.67	46.93	66	13	53	24	11	1	2	2	4	7	42	12	19	10	0	3.69
Mount Vernon Arsenal..	36.64	51.90	42.67	43.73	73	10	63	26	18	2	12	3	6	3	23	12	19	10	0	2.65
New Orleans.....	47.54	59.22	51.93	50.58	68	28	40	17	24	23	4	2	2	1	20	23	8	6	0	2.68
Baton Rouge.....	41.54	54.83	47.00	47.79	69	19	50	16	16	32	8	3	8	0	10	13	18	6	0	2.85
Fort Washita.....	24.16	37.45	29.93	30.51	71	− 4	75	11	20	10	10	5	3	9	13	12	19	0	5	1.20
Fort Smith.....	22.35	32.70	28.45	27.83	50	5	45	4	11	27	11	9	13	15	3	16	15	0	0	0
Fort Gibson.....	16.54	30.19	22.67	23.13	50	−20	70	13	35	27	0	0	0	6	9	16	15	1	5	2.20
Jefferson Barracks.....	13.26	29.36	19.00	20.54	52	0	52	1	28	19	16	0	3	0	24	19	12	0	2	.20
Newport Barracks.....	15.12	22.67	20.22	19.34	48	−11	59	5	13	0	0	11	25	29	19	13	18	2	3	.96
Fort Snelling.....	− 7.84	6.00	− 4.83	− 2.50	28	−35	63	0	0	2	25	8	15	5	58	22	9	0	5	2.18
Fort Ripley.....	−14.16	1.54	− 6.93	− 6.51	20	−37	57	16	11	2	4	18	3	17	22	9	22	0	4	1.67
Fort Ridgely.....	− 5.09	1.87	− 2.25	− 1.82	25	−26	51	0	0	2	11	1	5	36	20	16	15	0	5	5.85
Fort Leavenworth.....	6.41	18.32	11.58	12.11	41	−20	61	21	11	10	11	5	1	8	28	10	21	1	6	.97
Fort Riley.....	5.25	15.07	7.84	9.39	38	−23	61	28	16	4	4	12	4	4	11	21	10	0	5	.63
Fort Kearny.....	4.58	13.90	8.38	8.95	36	−12	48	35	6	1	0	7	2	23	19	18	13	0	3	1.06
Fort Laramie.....	20.11	31.12	23.06	24.86	56	−14	70	13	8	27	0	3	3	22	16	11	20	1	5	.33
Fort Pierre.....	.64	13.22	3.80	5.89	38	−18	56	20	9	23	3	2	4	14	17	14	17	2	3	.97
Fort Randall.....	−1.51	11.35	.38	3.40	40	−26	66	35	8	9	8	15	4	2	10	10	21	0	5	.91
Fort Arbuckle.....	20.74	35.09	25.67	27.16	63	− 4	67	41	6	12	10	4	4	7	9	22	9	0	1	1.10
Fort Belknap.....	25.81	41.32	32.68	33.27	71	12	59	53	2	0	9	3	17	2	7	18	13	0	0	0
Fort Chadbourne.....	25.90	50.00	33.90	36.60	70	5	65	38	3	1	3	19	6	7	15	21	10	1	0	.60
Fort McKavett.....	34.90	52.19	39.67	42.25	70	11	59	9	28	5	5	20	8	6	12	14	17	3	2	.26
Fort Mason.....	34.96	50.29	40.19	41.81	71	12	59	22	3	6	8	21	13	10	10	19	12	0	3	.67
Fort Brown.....	51.54	68.32	55.54	58.46	80	29	51	8	2	8	9	33	4	1	28	20	11	2	0	.10
Ringgold Barracks.....	45.90	65.93	54.58	55.47	84	27	57	19	4	3	20	21	2	0	24	16	15	1	0	.20
Fort Lancaster.....	27.22	52.58	38.58	39.46	70	5	65	29	3	2	3	41	2	1	2	13	18	0	1	.15
Camp Verde.....	30.80	53.19	37.80	40.59	76	10	66	21	6	0	11	8	12	0	15	17	14	0	0	0
Camp Colorado.....	30.76	48.37	35.16	38.09	74	8	66	16	13	9	1	4	8	8	4	11	17	0	0	0
Fort McIntosh.....	44.13	63.00	51.67	52.93	82	23	59	26	11	8	19	14	4	0	11	16	15	4	0	.40
Fort Duncan.....	38.86	59.12	47.16	48.38	78	20	58	0	0	2	18	0	0	0	23	13	18	0	0	0

MONTH OF JANUARY, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Camp Moore	37.23	58.26	2.52	46.00	73	25	48	1	18	4	13	9	15	29	9	25	6	0	0	0
Fort Clark	41.19	58.26	46.32	48.59	78	17	61	29	12	35	9	0	0	8	0	29	11	8	0	.35
Fort Davis	33.90	60.93	41.71	45.51	74	13	61	8	0	2	0	6	5	24	3	24	7	0	0	0
Fort Bliss	28.93	61.35	40.13	43.47	72	18	54	4	6	17	9	7	19	20	11	23	8	0	0	0
Fort Fillmore	32.12	64.58	43.48	46.72	95	22	73	0	17	26	0	0	2	34	14	25	6	1	0	.30
Fort Thorn	26.83	46.80	42.40	38.67	66	14	52	3	3	3	14	22	8	20	5	25	6	0	0	0
Fort Craig	21.20	56.29	35.67	38.72	72	5	67	21	11	6	2	9	9	16	19	28	3	0	2	.70
Fort Stanton	28.83	42.60	33.33	34.92	53	6	47	0	0	14	1	0	0	41	27	18	13	0	2	.67
Albuquerque	18.96	54.30	32.13	35.13	66	— 4	70	26	9	15	0	12	0	7	23	21	10	0	2	1.45
Santa Fe	20.45	38.80	27.19	25.48	49	3	46	1	8	14	6	1	23	24	16	22	9	0	3	1.03
Fort Union	23.61	42.38	26.90	30.96	58	— 8	66	9	10	1	13	4	5	5	46	23	8	0	1	.70
Cantonment Burgwin	10.54	32.80	16.90	20.08	43	—17	60	30	0	0	0	56	0	2	0	23	8	0	3	1.50
Fort Massachusetts	11.19	29.25	14.83	18.43	40	—17	57	13	16	6	6	21	14	12	5	17	14	0	1	.80
Fort Defiance	17.13	39.90	25.00	27.34	54	-11	65	3	6	2	3	15	14	33	17	23	8	0	2	.20
Fort Yuma	49.87	69.45	58.93	59.41	83	39	44	19	18	10	6	3	4	7	26	30	1	0	0	0
San Diego	41.67	62.68	48.62	50.99	89	33	47	3	6	23	5	1	39	13	3	21	10	3	0	.21
Fort Tejon	40.67	50.77	44.03	45.19	72	29	43	6	8	8	23	48	0	0	0	21	10	1	1	.37
Fort Miller	42.06	53.38	45.96	47.13	60	32	28	8	13	17	13	10	7	19	6	16	15	2	0	1.95
San Francisco	47.38	55.35	49.03	50.58	66	32	34	19	25	0	7	2	25	9	6	11	20	5	0	2.12
Benicia Barracks	45.35	54.84	48.00	49.39	65	32	33	0	0	62	3	3	0	25	0	18	13	4	0	1.69
Fort Humboldt	45.29	51.87	47.70	48.28	59	29	30	7	5	0	33	5	2	0	3	9	22	6	0	7.67
Fort Jones	25.32	38.42	29.22	30.98	50	—17	67	0	0	0	2	76	9	4	2	6	25	5	2	3.63
Fort Yamhill	35.61	42.87	37.90	38.79	58	9	49	1	0	0	1	21	31	6	10	4	27	19	5	11.86
Fort Vancouver	30.81	39.00	33.74	34.51	60	2	58	2	6	21	21	19	5	7	0	6	25	11	3	6.74
Fort Umpqua	43.93	50.03	46.48	46.81	59	26	33	0	13	14	15	7	23	4	8	6	25	17	1	13.53
Fort Dalles	23.03	32.32	24.61	26.65	52	—10	62	0	20	1	1	1	44	3	20	10	21	15	2	7.08
Fort Steilacoom	34.48	43.39	37.81	38.56	57	2	55	4	6	12	9	31	23	7	1	2	29	22	0	5.51
Fort Walla-Walla	24.65	32.03	25.62	27.44	60	—20	80	0	9	0	10	10	21	2	29	11	20	5	0	.91
Fort Hoskins	35.41	43.22	37.06	38.56	60	0	60	2	14	20	2	0	9	6	30	7	24	10	3	16.16

* Observations made during the last fourteen days only.

MONTH OF FEBRUARY, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow	Amount in inches.
Fort Independence	29.71	38.21	31.78	33.23	65	0	65	13	8	4	12	6	9	11	21	14	14	5	3	1.67
Fort Hamilton	29.96	40.67	33.53	35.05	61	7	54	9	8	13	13	2	14	6	19	16	12	3	2	1.62
West Point	33.21	40.21	35.50	36.30	65	12	53	24	3	0	8	34	5	2	8	13	15	8	4	1.79
Fort Columbus	31.10	41.57	30.60	34.42	60	6	54	1	15	2	7	5	28	7	16	15	13	2	2	.90
Alleghany Arsenal	37.14	46.54	38.00	40.56	68	2	66	6	4	9	7	27	11	10	10	13	15	4	1	1.56
Carlisle Barracks	28.00	42.25	33.82	34.69	65	—11	76	1	10	5	15	5	3	7	35	13	15	8	4	1.15
Fort Delaware	33.01	44.01	35.62	37.54	65	10	55	0	5	3	27	12	9	3	25	22	6	0	0	0
Fort McHenry	33.96	48.71	41.35	41.34	73	20	53	3	5	21	7	17	11	13	7	18	10	4	1	.66
Fort Monroe	42.68	50.36	46.50	46.51	72	20	52	0	6	10	20	2	34	1	11	19	9	3	0	.90
Fort Moultrie	51.32	61.00	55.00	55.77	73	37	36	13	17	19	4	13	6	8	4	12	16	5	0	1.73
Fort Capron	63.68	72.37	67.78	67.95	82	48	34	11	19	17	16	2	2	4	7	23	5	5	0	5.59
Key West Barracks	68.71	75.78	69.42	71.30	84	60	24	19	25	36	4	0	0	0	0	16	12	5	0	.99
Fort Myers	60.07	75.50	65.46	67.01	83	51	32	11	8	18	3	11	3	26	1	4	24	3	0	.01
Fort Dallas	66.25	76.46	68.00	70.23	83	53	30	2	24	37	11	3	0	7	0	22	6	2	0	1.59
Fort Deynaud	57.25	77.89	51.50	66.21	92	44	48	16	11	39	8	5	2	3	0	18	10	5	0	1.17
Fort Brooke	60.14	73.57	64.39	66.03	81	48	33	4	22	22	27	1	2	5	1	25	3	1	0	.10
Mount Vernon Arsenal	53.64	70.93	59.87	61.48	83	29	54	12	6	4	25	26	2	6	3	9	19	6	0	2.60
New Orleans	61.21	67.17	66.57	64.98	78	42	36	17	6	14	23	14	8	0	1	20	8	7	0	1.97
Baton Rouge	57.42	73.42	63.03	64.62	83	32	51	3	11	20	11	22	11	2	1	8	20	3	0	1.40
Fort Washita	46.35	60.39	52.62	53.11	80	17	63	2	9	8	16	23	5	11	7	8	20	6	0	4.19
Fort Smith	44.00	58.17	51.42	51.19	79	18	61	5	4	18	10	26	7	11	3	15	13	8	0	6.83
Jefferson Barracks	37.46	48.85	40.89	42.40	73	5	68	0	11	0	45	0	7	1	20	12	16	7	0	2.23
Newport Barracks	38.10	47.85	44.39	43.44	69	4	65	18	4	0	1	14	37	1	9	10	18	6	0	1.85
Fort Snelling	10.10	24.39	14.75	16.41	42	35	77	5	1	5	21	16	15	8	13	16	12	0	3	.94
Fort Ripley*	6.75	18.89	8.10	11.24	40	—45	85	14	8	2	11	23	3	14	7	19	9	0	4	1.68
Fort Ridgely	10.07	20.46	10.96	13.84	40	—26	66	3	0	2	3	13	12	31	19	15	13	0	5	5.54
Fort Leavenworth	26.89	40.00	32.67	33.18	67	— 8	75	8	5	5	13	10	9	13	21	11	17	2	1	5.56
Fort Riley	26.11	38.86	29.68	31.55	63	—10	73	18	12	3	14	23	4	7	3	18	10	3	1	3.36
Fort Kearny	14.89	29.17	19.10	21.05	43	—18	61	18	5	3	1	3	7	25	22	17	11	0	0	0
Fort Laramie	26.21	41.92	30.67	32.93	66	—11	77	0	2	19	4	0	3	35	21	17	13	0	4	.73
Fort Pierre	7.53	25.42	12.14	14.99	46	—17	63	11	8	22	6	10	0	12	13	17	11	0	1	2.17
Fort Randall	8.32	23.46	12.53	14.77	44	—22	66	32	2	15	10	16	5	4	2	18	10	0	5	.72
Fort Arbuckle	41.67	58.21	47.35	49.07	81	14	67	18	4	5	15	26	6	3	7	21	7	6	2	5.05
Fort Belknap	44.85	63.40	51.21	54.15	87	17	60	20	1	0	12	20	22	1	8	13	15	3	0	4.30
Fort Chadbourne	41.60	65.53	51.32	52.81	83	15	68	17	2	3	6	30	8	5	13	17	11	3	0	1.32
Fort McKavett	49.10	67.35	53.75	56.73	79	21	58	6	15	3	11	31	7	3	8	17	11	4	0	1.64
Fort Mason	51.17	67.66	55.64	58.14	83	26	57	6	2	5	5	49	8	2	7	11	17	3	0	1.95
Fort Brown	64.17	73.60	65.75	67.84	82	40	42	12	6	6	19	39	0	0	2	18	10	1	0	.55
Fort Lancaster	43.17	67.89	52.96	55.01	79	16	63	14	1	6	3	44	2	3	2	12	16	2	0	.25
Camp Colorado	44.85	67.48	53.62	55.31	84	17	67	9	4	9	4	5	6	8	3	12	16	0	0	0
Camp Cooper	41.14	63.53	48.75	51.14	83	17	66	9	3	6	5	2	7	8	2	17	11	3	0	2.91
Ringgold Barracks	61.17	79.25	65.67	68.69	89	36	53	6	3	15	12	10	0	0	8	19	9	0	0	0
Camp Verde	46.42	67.46	51.32	55.06	80	9	71	10	7	5	8	35	1	5	2	15	13	0	0	0
Fort McIntosh	59.03	79.78	66.78	68.53	91	30	61	6	5	11	45	9	1	2	4	18	10	4	0	.15
Fort Duncan	52.32	74.66	62.60	63.10	86	25	58	1	0	1	32	0	0	0	5	11	17	4	0	1.85
Fort Clark	54.14	69.85	60.65	61.4	83	28	55	8	12	18	13	1	0	2	0	21	7	2	0	4.00

MONTH OF FEBRUARY, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Davis	40.54	65.21	48.43	51.39		19	59	3	0	0	0	5	10	18	7	22	6	1	1	.23
Fort Bliss	34.82	64.17	46.00	48.33	80	16	64	2	3	12	17	12	17	18	3	22	6	1	0	.50
Fort Fillmore	35.39	63.64	48.71	49.24	85	20	65	9	14	16	4	1	[illegible]	29	6	11	14	3	0	.95
Fort Thorn	25.87	55.89	52.42	44.72	82	1	78	2	0	1	6	9	22	35	1	21	4	3	0	2.51
Fort Craig	30.71	63.25	41.78	45.24	81	10	71	11	7	9	2	23	10	16	6	22	6	0	2	.52
Fort Stanton	27.50	41.80	34.13	34.14	56	10	46	0	3	8	1	0	2	36	17	14	14	2	2	.97
Camp Moore	39.11	63.21	43.78	48.70	79	23	56	3	7	7	17	6	12	23	9	24	4	3	0	.75
Albuquerque	28.14	63.50	35.32	42.32	72	10	62	25	6	28	1	3	3	11	7	24	4	2	0	.25
Fort Marcy	30.78	50.78	37.85	39.77	65	7	58	6	11	19	11	4	6	11	13	18	10	0	4	.87
Fort Union	25.42	46.89	31.19	34.50	63	1	62	2	3	5	11	5	3	11	44	21	7	0	1	.11
Cantonment Burgwin	17.59	40.71	23.28	27.13	55	−10	65	26	0	0	0	54	0	0	0	18	10	0	4	.27
Fort Massachusetts	12.92	35.07	19.03	22.34	50	− 9	59	17	6	6	5	17	15	12	6	12	16	0	3	.52
Fort Defiance	23.65	43.28	30.21	32.38	60	−12	72	4	3	2	1	13	14	33	11	18	10	1	5	.67
Fort Yuma	50.82	70.10	60.35	60.42	83	36	47	5	11	7	11	4	18	4	24	25	3	1	0	.30
San Diego	44.64	62.64	49.46	52.24	73	27	46	0	9	11	19	1	27	13	4	15	13	6	0	2.12
Fort Tejon	42.07	53.28	43.92	46.42	62	30	32	3	4	2	46	14	0	0	15	16	12	3	1	.95
Fort Miller	46.71	57.04	49.03	50.92	68	32	36	12	12	25	9	5	3	10	8	8	20	6	0	4.53
San Francisco	46.42	54.75	49.39	50.17	67	33	34	11	9	0	12	9	26	8	9	11	17	5	0	6.09
Benicia Barracks	43.92	56.61	47.00	49.17	67	33	34	1	0	49	16	2	0	13	3	14	14	12	0	4.78
Fort Humboldt	43.17	51.50	45.67	46.78	58	29	29	6	5	1	20	9	10	0	4	8	20	7	0	5.90
Fort Jones	29.21	43.96	34.14	35.77	58	11	47	0	0	0	3	71	8	2	0	8	20	6	4	7.59
Fort Vanhill	39.25	45.25	41.00	41.83	56	32	24	1	3	1	13	11	26	0	13	3	25	21	3	9.03
Fort Vancouver	40.50	47.82	42.00	43.44	59	27	32	0	5	25	9	19	6	9	0	8	20	12	1	4.39
Fort Umpqua	44.67	50.92	46.39	47.33	60	33	27	0	8	17	16	0	30	5	6	5	23	19	3	11.44
Fort Hoskins	38.46	47.50	41.28	42.41	59	27	32	1	2	13	0	0	0	33	32	6	22	12	1	10.90
Fort Dalles	36.03	50.71	39.60	42.12	64	25	39	0	6	1	3	2	33	2	31	8	20	10	1	1.85
Fort Steilacoom	36.82	45.45	39.85	40.70	61	18	43	2	5	4	7	33	15	15	3	0	28	23	1	4.18
Fort Walla-Walla	35.39	45.60	38.35	39.78	58	19	39	0	0	0	11	36	37	0	0	15	13	12	2	1.44

[1] At Fort Ripley the lower degrees of temperature are measured with a spirit thermometer.

MONTH OF MARCH, 1857.

STATIONS	THERMOMETER: MEAN TEMPERATURE 7 A. M.	2 P. M.	9 P. M.	Mean.	RANGE: Max.	Min.	Range	WINDS: DIRECTION AND OBSERVATIONS N.	NE.	E.	SE.	S.	SW.	W.	NW.	WEATHER: DAYS. Fair.	Cl'dy.	RAIN & SNOW: DAYS. Rain.	Snow.	Amount in inches.
Fort Independence	28.90	38.29	32.61	33.26	60	12	48	5	7	9	10	7	4	8	43	16	15	3	4	2.69
Fort Hamilton	29.80	39.45	33.83	34.36	52	9	43	13	5	3	7	3	16	10	36	11	20	1	4	1.79
Fort Columbus	31.35	41.12	33.38	35.28	53	9	44	9	6	1	13	5	21	12	33	18	13	1	5	1.45
West Point	34.29	40.64	36.96	37.29	58	9	49	25	1	0	8	20	3	0	15	15	16	5	4	1.88
Allegheny Arsenal	30.48	43.74	33.70	35.97	72	7	65	7	3	4	9	9	22	23	16	15	16	4	2	1.03
Carlisle Barracks	29.90	41.90	33.00	34.93	62	10	52	3	8	5	8	11	6	17	33	14	17	3	3	1.60
Fort Delaware	33.64	42.12	35.93	37.24	59	10	49	4	3	1	16	6	4	0	56	24	7	0	0	0
Fort McHenry	34.87	46.46	39.74	40.35	65	13	52	2	3	11	11	6	8	35	15	17	14	0	5	2.30
Fort Monroe	40.42	49.45	44.90	44.92	71	18	53	0	22	5	12	3	24	12	15	24	7	4	2	1.80
Fort Moultrie	47.83	57.35	52.45	52.54	76	31	45	13	14	9	4	12	9	8	24	19	12	4	0	2.60
Fort Capron	64.35	72.97	67.26	68.19	84	46	38	13	22	17	11	1	7	10	12	25	6	6	0	3.21
Key West Barracks	70.16	76.00	70.54	72.23	87	63	24	34	21	9	10	9	0	7	3	17	14	4	0	3.69
Fort Myers	61.10	75.68	65.81	69.15	87	47	40	51	1	11	0	6	7	15	2	10	21	1	0	.84
Fort Dallas	67.22	78.22	72.30	72.58	85	50	35	4	40	11	2	9	3	13	11	26	5	6	0	5.59
Fort Desaaud	59.32	82.38	63.25	68.31	83	44	39	31	20	5	2	11	7	11	6	17	14	4	0	3.37
Fort Brooke	55.87	74.51	61.77	64.71	81	41	40	0	20	27	33	0	2	5	6	26	5	3	0	3.68
Mount Vernon Arsenal	48.77	66.00	54.67	56.48	86	30	55	18	19	1	13	10	4	8	18	12	19	7	0	4.50
New Orleans	58.90	64.51	63.64	62.35	78	43	35	18	12	17	17	4	6	10	9	25	6	7	0	2.86
Baton Rouge	53.58	68.64	59.70	60.57	83	36	47	7	11	24	8	17	15	7	1	10	21	4	0	6.05
Fort Washita	46.35	63.77	53.67	54.59	90	21	69	11	15	7	19	10	4	6	10	12	19	1	2	.38
Fort Smith	43.06	57.80	50.51	50.45	82	25	57	7	10	36	13	12	3	7	2	21	10	0	0	0
Fort Gibson	42.00	59.83	48.09	49.97	85	18	67	18	17	3	6	33	3	8	5	20	11	2	0	1.48
Jefferson Barracks	31.32	47.78	37.90	39.00	80	7	73	0	11	22	20	0	0	2	38	22	9	4	1	1.20
Newport Barracks	32.03	42.58	38.70	37.77	73	10	63	7	3	2	0	11	30	13	25	14	17	2	0	.70
Fort Snelling	16.38	32.48	22.96	23.94	57	—19	76	6	1	3	30	13	10	2	28	21	10	1	3	.79
Fort Ripley	11.25	28.55	16.45	18.75	46	—27	73	30	2	3	0	14	2	16	14	22	9	0	3	.74
Fort Ridgely	17.87	27.74	19.90	21.87	48	11	59	0	0	7	15	7	11	18	31	19	12	0	7	3.60
Fort Leavenworth	29.55	43.35	35.74	36.21	79	5	74	7	11	13	10	7	11	10	24	13	18	5	3	1.94
Fort Riley	33.23	46.16	37.71	39.03	73	11	62	29	17	7	15	12	5	3	5	17	14	2	1	.35
Fort Kearny	26.51	41.96	31.29	33.25	63	— 4	67	14	4	5	3	12	8	11	37	16	15	2	0	.12
Fort Laramie	32.83	51.22	38.71	40.93	68	7	61	16	9	16	1	4	2	42	3	20	11	0	0	0
Fort Pierre	26.80	43.61	29.19	33.20	58	— 8	66	15	4	25	12	1	1	20	15	15	16	4	1	.29
Fort Randall	22.03	36.93	25.51	28.15	60	— 7	67	22	5	8	17	16	3	9	13	17	14	4	3	.11
Fort Arbuckle	43.93	63.48	50.96	52.79	94	18	76	21	14	11	22	11	5	5	4	27	4	3	0	.63
Fort Belknap	49.56	67.64	52.67	56.55	90	23	67	32	1	0	12	33	7	0	8	11	20	3	1	1.54
Fort Chadbourne	45.54	68.64	55.26	56.48	92	20	72	30	4	5	12	32	5	2	3	18	13	3	0	1.13
Fort McKavett	51.48	69.16	56.90	59.18	89	30	59	7	29	2	15	27	9	2	2	19	12	3	2	.70
Fort Mason	51.12	68.80	56.22	58.72	88	24	64	19	3	5	7	43	11	1	4	20	11	2	1	.80
Fort Brown	65.09	73.25	64.22	67.52	86	36	50	9	8	6	40	16	0	1	13	20	11	2	0	2.30
Fort Lancaster	49.87	71.16	58.03	60.35	87	25	62	13	7	8	5	53	2	3	0	10	21	1	1	.65
Camp Verde	48.61	67.58	53.97	56.72	82	16	66	10	14	2	14	36	3	1	5	15	16	0	0	0
Camp Colorado	48.66	69.11	55.91	57.89	92	22	70	4	8	14	5	4	9	11	5	15	16	0	0	0
Ringgold Barracks	60.51	76.45	63.09	66.68	91	32	59	4	6	3	44	15	1	2	18	21	10	1	0	.60
Camp Cooper	48.02	70.36	49.93	56.10	94	27	67	6	7	2	2	2	7	9	3	20	11	2	0	.06
Fort McIntosh	59.58	80.06	67.25	68.96	97	28	69	5	19	6	47	7	3	0	6	18	13	4	0	.20
Camp Moore	49.61	8..66	55.10	62.13	88	37	51	0	4	17	21	10	16	17	8	99	2	0	0	0

MONTH OF MARCH, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow	Amount in inches.
Fort Duncan	55.64	76.54	64.51	65 56	93	30	63	0	1	15	38	0	0	0	3	12	19	1	0	.1
Fort Clark	56.61	72.00	62.25	63.62	86	34	52	8	11	37	14	21	1	0	1	23	8	5	0	.31
Fort Davis	50.19	72.35	55.81	59.45	90	24	66	5	6	3	1	3	9	19	3	23	8	6	1	.04
Fort Bliss	43.84	77.52	57.74	59.70	89	31	58	4	7	18	9	11	16	15	13	22	9	0	0	0
Fort Fillmore	48.51	75.32	60 12	61.31	90	35	55	3	3	31	14	0	9	28	5	24	7	0	0	0
Fort Craig	40.35	78.87	51.32	56.86	91	27	64	9	8	5	7	31	10	9	14	27	4	0	0	0
Fort Stanton	39.43	56.10	46.46	47.33	68	25	43	2	3	18	5	1	7	28	21	15	16	0	2	.17
Fort Marcy	37.48	58.61	43.83	46.64	73	29	53	3	12	16	21	7	12	16	7	22	9	0	2	.11
Albuquerque	39.45	74.70	37.87	50.67	83	26	57	35	0	21	0	11	7	17	2	31	0	0	0	0
Fort Union	34.61	56.03	38.00	42.88	78	17	61	9	5	4	10	5	14	8	38	19	12	0	1	.12
Cantonment Burgwin	31.06	55.58	35.58	41.74	74	19	55	19	0	0	2	66	2	0	2	22	9	0	3	.12
Fort Massachusetts	28.00	49.48	31.93	36.47	70	12	58	4	11	1	9	6	22	35	5	14	17	0	2	.20
Fort Defiance	31.42	59.71	44 16	46.10	70	23	47	2	3	2	1	9	20	32	24	26	5	0	0	0
Fort Yuma	59.51	84.74	70.90	71.70	92	52	40	12	15	9	6	4	13	16	18	30	1	0	0	0
San Diego	48.19	71.29	52.67	57.39	85	40	45	1	7	16	8	4	34	16	7	21	10	0	0	0
Fort Tejon	59.64	64.61	53.16	56.12	71	29	42	2	0	0	63	9	2	1	16	25	6	0	0	0
Fort Miller	52.45	66.00	56.52	58.32	74	42	32	10	6	16	11	14	6	21	9	19	12	3	0	.29
San Francisco	49.77	58.09	51.09	52.98	67	46	21	2	2	0	13	5	39	27	5	13	18	8	0	1.39
Benicia Barracks	52.03	64.00	55.29	57.10	76	43	33	0	0	34	15	0	0	44	0	25	6	6	0	1.17
Fort Humboldt	47.51	56.16	51.03	51.56	62	38	24	10	4	0	16	17	8	1	5	24	7	7	0	8.23
Fort Jones	36.06	54.83	43.64	44.84	66	28	38	0	0	1	0	90	2	0	0	26	5	4	1	2.35
Bellingham Bay	44.68	53.00	44.64	47.11	61	40	21	....	....	....	....	....	....	....	....	....	....	....	....	.....
Fort Walla-Walla	39.50	55.80	44.55	46.51	64	32	32	0	8	0	10	30	45	0	0	22	9	15	0	1.47
Fort Umpqua	47.09	56.51	49.64	51.08	64	40	24	0	7	8	8	0	47	4	13	10	21	12	3	8.41
Fort Yamhill	42.22	53.12	46.93	47.42	63	34	29	4	1	1	17	8	20	0	19	11	20	20	3	8.52
Fort Vancouver	46.16	54.19	46.35	48.90	63	33	30	0	1	15	22	16	6	14	2	11	20	20	0	7.30
Fort Dalles	41.45	60.00	47.00	49.48	70	33	37	0	12	1	7	2	24	5	35	14	17	11	1	2.83
Fort Hoskins	41.84	53.35	45.42	46.86	62	32	30	0	5	27	2	0	0	35	21	11	20	13	0	8.63
Fort Steilacoom	37.35	47.58	40.06	41.66	58	27	31	9	4	5	7	24	11	25	5	0	31	23	0	4.45

MONTH OF APRIL, 1857

STATIONS	THERMOMETER. MEAN TEMPERATURE				RANGE.			WINDS. DIRECTION, NO. OF OBSERVATIONS								WEATHER.		RAIN & SNOW. DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence	38.96	47.50	41.36	42.60	61	18	43	12	29	0	7	9	12	6	4	16	14	8	2	6.40
Fort Hamilton	38.80	46.80	41.50	42.05	69	18	51	6	12	0	1	2	25	5	5	10	20	9	2	6.68
Fort Columbus	39.96	50.60	49.16	43.27	62	14	48	3	16	2	6	11	14	9	29	5	13	11	1	5.70
West Point	42.83	49.70	44.33	45.62	59	24	35	20	2	1	6	31	2	5	14	14	16	8	6	5.32
Allegheny Arsenal	36.83	47.90	40.86	41.86	64	22	42	3	17	6	6	7	14	25	12	12	18	8	0	2.40
Carlisle Barracks	39.86	48.63	39.60	42.69	66	23	43	7	3	10	10	10	7	13	30	14	16	4	1	2.26
Fort Delaware	41.53	52.40	41.96	45.96	69	24	45	5	18	3	11	9	0	1	43	19	11	2	0	3.00
Fort McHenry	42.46	51.66	45.46	46.52	65	26	39	11	6	8	7	12	11	21	14	13	17	6	1	1.84
Fort Monroe	45.44	54.33	49.33	50.03	68	33	35	1	16	18	15	3	14	12	11	18	12	8	1	5.12
Fort Moultrie	54.43	62.23	57.70	58.12	74	35	39	12	16	8	4	18	5	17	10	13	17	6	0	3.29
Fort Capron	68.07	75.07	68.43	70.52	90	57	33	14	9	17	13	1	9	15	7	25	5	9	0	3.26
Key West Barracks	73.46	77.06	71.10	72.87	87	61	26	21	17	13	11	13	2	5	5	12	18	4	0	1.94
Fort Myers	61.71	77.91	67.39	69.00	90	52	38	41	0	1	0	15	2	31	0	15	15	6	0	2.13
Fort Dallas	66.10	77.86	74.43	72.79	86	50	36	13	18	12	24	5	7	8	3	26	4	5	0	3.90
Fort Deynaud	69.53	87.63	65.26	71.20	101	46	55	19	15	7	14	8	13	5	9	16	14	3	0	.73
Fort Brooke	59.33	73.96	64.43	65.90	84	42	42	1	26	9	29	3	16	1	3	26	4	3	0	.91
Mount Vernon Arsenal	53.09	67.09	57.03	59.07	82	36	46	14	0	5	26	8	5	4	28	15	15	7	0	4.78
New Orleans	69.90	67.70	66.30	64.96	79	47	32	26	19	7	15	11	0	5	19	22	8	6	0	1.73
Baton Rouge	58.76	67.70	60.10	60.52	77	34	43	16	18	11	10	26	2	2	5	11	19	7	0	2.18
Fort Washita	48.76	64.83	54.13	55.90	86	28	58	15	14	7	10	21	2	6	8	13	17	3	0	.44
Fort Smith	42.93	59.50	53.16	51.86	68	24	44	15	21	19	15	11	4	1	3	22	8	4	0	3.49
Jefferson Barracks	36.46	50.53	41.70	43.23	75	17	58	0	23	10	10	0	0	3	44	15	15	4	1	2.12
Newport Barracks	37.83	48.76	43.36	43.31	75	21	54	7	17	0	0	15	13	19	19	10	20	11	0	5.33
Fort Snelling	26.63	39.16	31.46	32.41	64	3	61	13	6	4	11	6	14	4	32	18	12	5	4	4.25
Fort Ripley	23.46	37.56	27.63	29.55	52	7	59	23	5	3	3	8	10	12	13	19	11	2	3	1.16
Fort Ridgely	27.43	35.20	27.30	29.96	56	7	49	2	5	5	8	2	7	13	35	16	14	0	5	2.90
Fort Leavenworth	38.96	53.00	43.63	45.19	72	19	53	13	8	6	10	13	6	9	25	12	18	5	1	.58
Fort Riley	39.07	51.87	43.33	44.75	71	18	53	40	8	2	16	8	5	6	5	18	12	4	0	.84
Fort Kearny	31.80	46.80	34.66	37.75	72	10	62	28	4	1	4	7	3	17	26	14	16	4	0	1.21
Fort Laramie	33.16	51.16	38.13	40.81	71	5	66	12	11	17	4	4	6	26	10	14	16	0	4	.07
Fort Pierre	33.13	48.56	35.50	39.13	70	6	64	25	5	17	3	6	1	14	14	19	11	5	1	.58
Fort Randall	28.00	43.36	30.00	33.78	61	7	54	37	9	8	9	8	3	8	8	19	11	3	3	1.21
Fort Arbuckle	45.30	65.60	50.56	53.81	88	27	61	33	7	10	14	16	2	5	3	23	7	4	0	1.69
Fort Belknap	52.10	67.16	53.33	57.53	94	31	63	34	3	1	6	21	18	0	7	19	11	1	1	.14
Fort Chadbourne	45.40	66.43	53.60	55.14	92	28	64	32	7	3	13	18	9	6	2	19	11	5	0	1.14
Fort McKavett	50.63	69.30	55.10	58.34	85	30	55	14	23	12	4	31	2	1	3	21	9	4	0	.64
Fort Mason	51.50	68.23	56.80	58.84	90	30	60	22	5	7	7	17	26	2	4	18	12	2	0	.80
Fort Brown	64.56	74.46	65.90	68.30	88	45	43	9	8	17	34	13	0	0	9	13	17	4	0	1.15
Fort Lancaster	48.30	71.93	57.53	59.25	90	31	59	26	1	0	4	47	2	0	1	10	20	3	0	1.02
Camp Verde	48.63	68.40	54.13	57.05	86	29	57	19	10	3	22	13	13	0	7	15	15	0	0	0
Camp Colorado	49.98	70.78	55.42	58.72	90	28	62	14	5	6	2	11	9	6	1	15	12	0	0	0
Ringgold Barracks	62.36	77.80	64.13	68.19	94	44	50	2	15	8	33	8	3	2	20	16	14	6	0	1.52
Camp Cooper	46.66	69.98	50.11	55.59	93	29	64	7	6	4	3	2	7	5	6	29	10	3	1	.42
Fort McIntosh	61.00	80.20	67.63	69.99	102	40	62	7	16	5	44	3	2	3	10	14	16	3	0	.71
Fort Clark	56.96	71.73	61.80	63.49	86	40	46	16	2	46	10	14	2	0	0	21	9	4	0	.25
Camp Moore	50.79	80.80	58.57	64.05	88	41	47	2	6	13	17	13	19	17	3	27	3	2	0	.02

MONTH OF APRIL, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Duncan	57.16	76.66	65.86	66.56	95	37	58	0	7	3	2	0	0	2	8	1	26	2	0	.12
Fort Thorn	44.40	77.02	51.70	57.70	92	25	67	11	3	1	4	10	4	52	1	23	7	1	0	.01
Fort Fillmore	55.46	75.10	61.10	63.88	85	38	47	0	7	18	27	0	11	18	6	19	11	1	0	.26
Fort Craig	48.16	81.03	55.40	61.52	93	26	67	1	12	1	8	15	18	20	9	25	5	0	1	.07
Fort Stanton	39.96	54.66	46.86	47.16	66	21	45	1	1	11	6	0	6	18	29	13	17	3	2	.62
Albuquerque	48.10	81.10	34.00	54.50	86	30	56	4	5	7	1	11	1	52	6	24	6	3	0	..
Fort Marcy	42.90	61.26	45.33	49.83	75	33	42	8	14	6	8	13	15	21	5	21	9	3	3	.73
Fort Union	42.73	57.70	38.23	46.22	72	21	51	16	20	2	13	4	4	3	28	20	10	0	4	.98
Cantonment Burgwin	41.80	59.53	39.33	46.88	75	23	52	23	1	1	0	53	5	0	3	20	10	5	4	.32
Fort Massachusetts	35.20	51.10	34.03	40.11	64	20	44	14	15	1	0	6	20	21	7	9	21	0	5	1.51
Fort Defiance	40.73	62.67	46.73	50.04	70	29	41	4	4	4	4	2	22	33	17	20	10	7	2	.51
Fort Yuma	66.13	87.73	73.20	75.78	96	60	36	4	16	8	11	4	22	16	9	29	1	0	0	0
San Diego†	55.87	75.18	58.06	63.00	85	42	43	0	3	4	13	8	11	9	0	7	10	0	0	0
Fort Tejon	53.83	70.80	59.30	61.31	80	42	38	0	0	0	72	5	1	2	10	22	8	1	0	.04
Fort Miller	60.93	78.76	69.06	69.58	91	53	38	13	6	12	5	9	11	28	6	22	8	0	0	0
San Francisco	53.76	61.50	53.33	56.19	76	48	28	1	2	0	1	1	42	41	2	14	16	0	0	0
Benicia Barracks	53.60	69.73	59.20	60.84	86	43	43	0	2	0	5	0	49	34	0	23	7	0	0	0
Fort Humboldt	51.60	60.20	54.53	55.54	68	38	30	21	7	0	4	5	4	1	7	10	20	2	0	.06
Fort Jones	42.10	78.30	56.43	58.94	89	30	59	0	0	0	4	79	5	1	1	16	14	0	0	0
Fort Bellingham	46.63	67.23	50.56	54.80	75	40	35	....	....	....	....	....	....	....	....	....	....	....	....	.27
Fort Umpqua	50.46	60.80	51.43	54.22	72	41	31	0	4	1	0	0	15	0	67	22	8	3	0	.67
Fort Yamhill	46.60	66.60	52.26	55.48	81	35	46	5	4	3	7	0	7	36	5	27	3	2	0	.10
Fort Vancouver	50.13	68.30	51.37	56.60	80	33	47	1	0	10	0	1	4	36	8	25	5	3	0	.37
Fort Dalles	48.30	68.06	53.13	56.83	77	38	39	1	20	0	9	4	23	13	17	27	3	3	0	0
Fort Hoskins	47.20	70.50	52.26	56.65	84	38	46	0	3	34	4	0	1	35	9	26	4	1	0	.09
Fort Steilacoom	41.10	61.83	48.30	50.41	76	30	46	28	11	5	3	3	6	19	15	7	23	3	0	.26
Fort Simcoe	49.00	65.40	50.26	54.86	74	34	40	3	7	23	6	12	15	15	3	27	3	0	0	0

* Observations for twenty seven days only.

† Observations for seventeen days only.

MONTH OF MAY, 1857.

STATIONS	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE				RANGE			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Kennebec Arsenal	49.13	60.61	48.87	52.87	82	38	44	14	6	13	5	38	7	5	8	14	17	6	0	2.54
Fort Independence	51.77	60.67	53.06	55.16	79	43	36	7	21	8	8	14	21	7	4	18	13	12	0	4.92
Fort Hamilton	51.54	61.54	54.51	55.93	73	41	32	9	12	1	8	2	33	5	33	11	20	10	0	5.03
Fort Columbus	53.09	66.38	55.25	58.24	84	41	43	8	12	3	10	16	23	11	10	19	12	7	0	5.19
West Point	55.93	63.41	58.45	59.26	80	46	34	32	2	2	9	32	1	5	12	18	13	10	0	5.70
Allegheny Arsenal	52.45	65.32	55.70	57.82	84	37	48	14	12	7	5	15	19	10	8	13	18	10	0	6.34
Carlisle Barracks	55.19	65.61	57.26	59.35	83	41	42	2	8	1	16	8	8	34	10	19	12	8	0	8.65
Fort Delaware	57.93	67.61	57.54	61.02	88	42	46	3	8	5	8	2	3	7	5	22	9	2	0	2.00
Fort McHenry	57.12	68.83	61.00	62.31	88	45	43	10	7	16	14	11	8	11	10	18	12	8	0	6.30
Fort Monroe	60.67	66.48	62.74	63.29	79	43	36	1	29	9	16	12	20	4	11	18	13	8	0	3.69
Fort Moultrie	67.38	73.16	68.80	69.78	84	53	31	6	8	11	5	31	10	15	7	17	14	5	0	.63
Fort Capron	74.97	80.48	75.19	76.88	85	66	19	8	10	16	30	9	3	7	9	21	7	12	0	1.93
Key West Barracks	77.54	82.68	76.48	78.90	92	71	21	26	17	16	15	11	5	1	2	8	24	3	0	.89
Fort Myers	69.65	85.65	75.32	76.87	92	61	31	32	1	0	0	21	7	32	0	7	24	6	0	.23
Fort Dallas	73.25	82.43	77.38	78.68	86	63	23	3	31	25	17	6	4	0	0	28	3	4	0	3.24
Fort Brooke	68.38	85.54	72.12	75.34	89	57	32	1	19	19	32	16	6	0	0	27	4	4	0	.36
Fort Desmond	69.51	87.58	74.87	77.32	94	60	34	8	43	1	31	3	2	3	1	19	12	5	0	.04
Mount Vernon Arsenal	67.87	77.58	67.80	71.08	87	55	32	8	1	17	19	18	4	11	15	15	16	8	0	7.17
New Orleans	70.51	76.90	75.09	74.16	85	58	27	2	3	13	25	6	17	6	19	22	9	8	0	7.33
Baton Rouge	65.12	78.25	69.87	71.08	85	53	32	13	11	11	8	35	5	5	3	10	21	8	0	9.91
Fort Washita	61.38	75.48	68.25	67.70	89	50	39	6	18	13	13	14	5	7	3	6	25	9	0	4.41
Fort Smith	59.61	74.45	66.61	66.89	88	48	40	12	13	22	5	16	4	10	4	19	12	6	0	3.63
Jefferson Barracks	56.12	72.01	61.23	63.12	86	40	46	0	9	16	35	0	9	6	16	20	11	6	0	1.22
Newport Barracks	53.16	64.00	59.03	58.72	80	38	42	8	19	6	3	14	25	14	4	10	21	9	0	9.25
Fort Snelling	48.51	62.51	54.80	55.27	84	36	48	20	9	8	18	17	11	3	5	22	9	7	6	2.05
Fort Ripley	49.31	66.31	42.97	52.86	89	27	62	18	10	8	10	9	8	10	15	13	12	10	1	2.68
Fort Ridgely	52.40	64.32	49.80	55.67	86	30	56	4	5	15	4	1	13	22	19	19	12	14	1	1.90
Fort Leavenworth	59.35	69.93	59.77	63.01	88	48	40	14	9	7	8	13	15	18	11	11	20	9	7	2.31
Fort Riley	55.93	66.16	57.71	59.92	88	37	51	22	6	2	19	17	5	11	4	20	11	8	0	.91
Fort Laramie	46.00	64.96	50.22	53.72	83	33	50	13	3	21	2	8	2	33	18	16	15	0	0	1.45
Fort Kearny	49.90	62.87	49.74	54.16	87	32	55	7	11	0	1	10	1	19	41	15	16	7	0	1.56
Fort Pierre *	45.55	59.71	47.50	50.83	80	31	49	9	3	20	2	4	2	5	6	6	8	9	2	2.88
Fort Randall	51.03	63.00	50.06	54.36	92	28	64	25	6	11	13	6	11	10	9	19	12	11	2	1.97
Fort Ashuckle	58.87	75.22	61.87	65.32	90	47	43	13	10	22	11	16	2	10	6	24	7	15	0	.50
Fort Belknap	65.22	79.10	67.42	70.58	93	46	47	15	9	1	24	20	9	5	10	12	19	9	0	2.91
Fort Chadbourne	60.32	80.93	67.90	69.72	94	42	52	9	7	18	17	15	9	7	11	20	11	3	0	.74
Fort McKavett	64.12	81.83	68.16	71.37	93	45	48	12	6	6	12	21	1	3	2	18	13	3	0	.43
Fort Mason	65.83	82.61	68.48	72.30	94	47	47	16	0	1	2	59	4	6	3	19	12	3	0	.80
Fort Brown	71.74	82.64	71.93	75.44	94	56	38	7	4	7	51	17	1	0	6	20	11	0	0	0
Fort Lancaster	62.10	83.01	70.64	71.91	96	44	52	19	4	4	6	49	0	4	3	8	23	2	0	3.20
Camp Verde	64.03	81.06	64.77	69.95	93	45	48	10	5	3	33	20	7	1	4	20	11	0	0	0
Camp Colorado	64.46	83.93	67.64	72.01	95	46	49	6	4	18	15	8	5	8	5	19	21	0	0	0
Ringgold Barracks	70.83	87.67	73.45	77.31	100	55	45	7	2	14	36	6	0	3	5	17	14	2	0	.28
Camp Cooper	62.90	84.00	69.16	72.02	99	42	57	3	2	2	7	15	0	5	0	18	13	6	0	2.50
Fort McIntosh	70.96	94.48	77.70	81.05	106	56	50	5	3	10	60	5	0	3	7	18	13	6	0	1.55
Fort Clark	67.00	82.53	71.87	74.80	92	57	35	3	3	15	19	22	0	0	1	22	9	3	0	.67

MONTH OF MAY, 1857.

STATIONS.	THERMOMETER.							WINDS								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow	
Camp Moore	60.16	87.06	67.61	70.61	100	48	52	1	0	11	16	15	20	22	5	31	0	0	0	0
Fort Duncan	68.35	88.52	78.87	78.58	97	53	44	0	2	35	0	0	0	0	14	4	27	4	0	.67
Fort Davis	61.32	82.22	67.15	70.23	93	38	55	7	12	7	1	2	1	12	2	21	10	4	0	.46
Fort Bliss	59.55	87.77	68.13	71.81	95	45	50	0	9	25	17	8	8	15	11	20	11	0	0	0
Fort Thorn	52.96	86.00	61.38	66.78	96	30	66	8	7	2	1	5	24	45	1	25	6	0	0	0
Fort Fillmore	68.41	87.93	69.87	75.40	102	50	52	0	1	16	34	13	10	19	0	22	9	0	0	0
Fort Craig	63.03	83.61	66.16	70.93	96	51	47	12	7	4	9	29	22	5	5	27	4	2	0	.16
Fort Stanton	51.46	64.06	56.60	57.35	72	32	40	0	1	21	7	0	9	30	15	13	18	2	0	.69
Albuquerque	52.00	81.87	53.13	62.33	96	37	59	0	2	3	1	11	9	62	5	28	3	0	0	0
Fort Marcy	49.09	68.87	54.48	57.48	82	28	54	7	10	9	15	6	19	17	10	21	7	1	1	.18
Fort Union	54.51	66.77	48.16	56.48	81	26	55	5	5	8	10	17	8	12	28	22	9	3	1	.25
Cantonment Burgwin	50.58	65.87	45.41	53.95	78	30	48	26	1	8	0	48	3	5	1	19	12	2	3	.13
Fort Massachusetts	44.64	60.20	40.68	45.50	71	21	50	7	13	1	3	12	25	27	3	5	25	1	2	.75
Fort Defiance	49.97	68.55	53.68	57.40	80	34	46	8	1	2	1	14	20	30	17	21	7	2	0	.04
Fort Yuma	70.93	92.41	75.80	79.68	103	60	43	2	14	3	18	13	21	18	4	31	0	0	0	0
San Diego	59.58	75.87	61.03	65.49	90	50	40	0	2	20	9	3	28	27	1	16	15	2	0	.12
Fort Tejon	58.39	75.45	61.60	65.14	88	44	44	2	7	11	12	17	0	0	14	28	3	3	0	.63
Fort Miller	64.97	82.61	72.16	73.24	98	51	47	19	12	4	4	14	8	21	8	22	9	0	0	0
San Francisco	53.77	60.18	52.64	55.53	67	50	17	0	0	0	4	1	11	35	9	13	18	5	0	.14
Benicia Barracks	53.35	71.68	59.84	61.62	91	47	44	0	0	0	0	0	30	63	0	28	3	1	0	.01
Fort Humboldt	53.67	60.03	54.06	55.92	67	46	21	23	8	1	5	1	13	0	5	15	16	8	0	1.43
Fort Jones	49.35	75.67	59.93	61.65	98	35	62	21	17	4	12	23	7	2	7	17	14	6	0	.69
Fort Umpqua	54.54	62.61	53.51	56.87	78	46	32	0	10	2	0	0	33	1	42	18	13	7	1	3.07
Fort Yamhill	51.80	66.80	53.22	57.27	91	40	51	1	2	2	3	0	27	13	27	21	10	11	0	1.76
Fort Vancouver	55.35	69.23	55.80	60.12	96	42	54	0	0	7	3	2	10	45	10	21	10	10	0	3.04
Fort Dalles	55.67	73.42	60.26	63.11	96	47	49	0	22	2	2	2	14	17	27	21	10	1	0	.23
Fort Hoskins	50.29	71.90	52.80	58.33	95	39	56	0	13	12	5	17	18	12	16	20	11	8	0	1.33
Fort Steilacoom	49.40	64.69	51.35	55.14	92	40	52	13	10	1	4	14	10	18	23	2	29	7	0	.83
Fort Simmoe	56.06	72.39	56.87	61.77	98	45	53	23	6	19	2	3	1	19	9	21	10	5	0	.04
Fort Bellingham	54.64	71.90	53.10	59.88	85	50	35	....	....	....	....	....	....	....	....	....	....	....	....	....

* Observations for fourteen days only.

MONTH OF JUNE, 1857.

STATIONS.	THERMOMETER							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Kennebec Arsenal	59.93	69.26	56.93	62.04	79	45	34	11	5	7	2	20	6	16	13	13	17	10	0	3.20
Fort Independence	60.66	70.53	61.74	64.31	78	52	26	7	14	15	5	5	6	1	13	15	13	8	0	1.77
Fort Hamilton	61.43	69.50	62.10	64.44	80	43	37	3	9	10	22	1	20	15	21	11	19	7	0	4.60
Fort Columbus	67.76	72.83	65.40	68.66	82	55	27	6	15	7	9	7	15	15	21	15	15	14	0	4.20
West Point	63.93	70.40	66.86	67.06	81	57	24	14	9	1	8	38	1	8	17	12	18	15	0	6.38
Allegheny Arsenal	64.20	76.53	65.73	68.82	90	45	45	5	3	0	12	15	18	23	11	13	17	21	0	5.14
Carlisle Barracks	64.50	73.60	68.05	68.85	85	55	30	0	0	4	19	16	7	42	1	18	12	10	0	9.35
Fort Delaware	68.36	76.66	68.46	71.16	87	60	27	1	13	15	6	2	5	12	33	21	9	5	0	5.36
Fort McHenry	67.76	77.06	69.53	71.45	87	56	31	5	11	10	9	9	8	30	5	15	15	12	0	7.45
Fort Monroe	73.86	79.86	74.13	75.95	89	60	29	3	9	1	9	12	44	4	7	21	9	5	0	4.85
Fort Capron	80.00	84.63	78.67	81.09	96	74	22	2	5	11	33	11	11	9	1	15	15	17	0	7.65
Fort Moultrie	76.43	82.03	77.53	78.66	89	70	19	3	14	5	1	36	16	15	0	19	11	7	0	3.93
Key West Barracks	81.66	85.26	80.43	82.45	87	76	11	10	2	20	25	13	1	4	3	3	27	11	0	1.25
Fort Myers	73.45	87.87	77.22	79.52	95	71	24	19	1	14	0	23	4	26	0	4	26	19	0	8.03
Fort Dallas	78.40	85.40	81.70	81.83	88	73	15	0	3	25	24	20	3	4	0	20	10	7	0	6.20
Fort Deynaud	75.60	86.46	78.00	80.02	94	72	22	0	20	1	25	2	2	5	3	13	17	15	0	10.46
Fort Brooke	74.40	84.46	75.53	78.45	90	72	18	0	19	11	19	22	15	4	0	23	7	12	0	5.56
Mount Vernon Arsenal	77.33	84.53	76.29	79.36	93	70	23	10	10	9	23	7	4	13	14	15	13	2	0	2.60
New Orleans	77.20	82.13	80.96	80.09	88	73	15	6	7	6	23	5	18	1	24	24	6	6	0	2.90
Baton Rouge	72.66	83.80	76.73	77.73	90	65	25	6	13	6	4	36	6	14	5	10	20	8	0	2.53
Fort Washita	71.23	85.30	76.06	77.53	94	61	33	0	5	21	12	11	6	9	6	12	18	3	0	2.72
Fort Smith	68.80	84.00	75.13	75.97	93	58	35	4	6	29	7	17	9	10	1	27	3	5	0	1.75
Fort Gibson	70.81	86.66	73.41	76.99	89	64	25	26	0	0	21	0	6	0	0	.....	.....	.....	.....	.....
Jefferson Barracks	68.63	85.23	72.86	75.57	94	51	43	0	0	14	62	1	9	2	2	22	8	7	0	7.11
Fort Mackinac	51.16	53.33	51.20	53.56	78	42	36	10	12	9	3	34	13	6	3	19	11	11	0	2.84
Newport Barracks	64.83	74.40	69.06	69.43	89	55	34	1	4	0	2	19	38	19	1	11	19	12	0	4.53
Fort Snelling	59.63	72.16	63.73	65.17	90	46	44	16	2	4	10	16	19	6	22	24	6	6	0	6.74
Fort Ripley	59.40	74.33	60.03	64.65	90	44	46	19	11	1	5	9	7	10	17	20	10	4	0	5.66
Fort Ridgely	63.96	73.23	60.26	65.80	87	41	46	1	1	8	4	1	18	19	18	1	12	9	0	2.85
Fort Leavenworth	69.13	83.16	73.16	75.15	98	57	41	5	3	0	9	23	24	16	10	22	8	10	0	5.91
Fort Riley	70.20	82.67	74.60	74.89	94	54	40	11	3	2	3	43	11	12	5	26	4	4	0	1.20
Fort Kearny	64.73	82.20	65.13	70.68	98	50	48	12	7	2	4	11	7	13	34	19	11	5	0	.49
Fort Laramie	57.53	77.53	61.60	65.55	90	46	44	11	4	22	3	15	5	22	8	25	5	6	0	2.12
Fort Randall	62.90	78.73	63.50	68.37	96	50	46	16	10	7	23	5	9	4	16	21	9	11	0	1.98
Fort Arbuckle	70.13	86.16	72.60	76.29	95	57	38	5	6	15	20	24	5	5	8	25	3	7	0	3.24
Fort Belknap	74.66	89.96	76.53	80.38	99	61	38	12	8	9	19	25	11	3	3	21	9	3	0	4.29
Fort Chadbourne	69.36	90.43	77.46	79.08	103	59	44	7	6	6	25	30	6	3	7	18	12	7	0	1.49
Fort McKavett	71.40	89.90	73.76	78.35	98	62	36	0	10	1	18	30	1	1	0	18	12	3	0	.90
Fort Mason	71.36	90.96	77.20	80.40	101	66	35	5	5	4	7	58	8	2	1	20	10	2	0	1.45
Fort Lancaster	70.60	89.13	77.36	79.03	101	58	43	10	5	2	12	36	0	1	1	8	22	6	0	3.35
Camp Verde	75.23	89.46	69.96	78.21	97	59	38	2	9	2	28	15	15	1	7	26	4	5	0	.40
Camp Colorado	74.40	95.96	77.41	82.59	108	60	48	3	3	8	13	8	13	7	1	11	19	0	0	0
Camp Cooper	72.93	96.38	78.77	82.69	111	64	47	0	0	1	1	11	3	1	2	21	9	1	0	3.10
Fort McIntosh	78.56	96.93	84.30	86.59	103	68	35	1	5	6	62	10	2	1	1	20	10	3	0	.31
Fort Clark	74.63	89.93	81.20	81.92	99	65	34	0	2	35	19	30	3	1	0	24	6	2	0	1.20
Fort Duncan	77.03	91.43	86.46	85.00	103	70	33	0	1	1	50	0	0	0	1	7	23	3	0	1.91

MONTH OF JUNE, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy.	Rain.	Snow.	
Fort Davis	69.06	87.30	72.43	76.26	98	58	40	0	1	2	3	1	12	16	1	21	9	5	0	1.62
Fort Bliss	69.26	94.00	76.96	80.07	100	60	40	0	1	16	19	13	13	21	1	20	10	2	0	.63
Fort Thorn	64.43	94.80	73.00	77.41	103	54	49	5	13	6	1	1	1	60	0	25	5	0	0	0
Fort Fillmore	79.56	96.86	73.66	83.32	106	60	46	0	0	0	2	73	7	1	0	26	4	0	0	0
Fort Craig	74.70	96.86	74.93	82.16	110	62	48	11	8	5	11	21	15	10	7	24	6	2	1	.50
Fort Stanton	58.33	71.30	63.40	64.34	80	45	35	0	6	21	6	0	6	27	8	7	23	8	0	1.27
Fort Brown	78.50	90.13	77.70	82.10	96	72	24	1	5	25	52	7	0	0	0	23	7	1	0	.50
Albuquerque	64.20	89.93	72.40	68.83	97	45	52	0	0	8	2	12	9	59	0	26	4	1	0	.10
Ringgold Barracks	80.86	95.23	79.43	85.17	100	69	31	5	11	6	61	3	1	0	3	24	6	1	0	.16
Fort Marcy	60.73	79.30	66.12	68.71	89	52	37	6	15	7	14	8	13	8	15	21	9	1	0	.22
Fort Union	65.93	77.53	59.53	67.66	90	47	43	1	2	10	15	15	7	12	28	22	8	5	0	2.49
Cantonment Burgwin	56.33	79.43	63.53	66.43	98	48	50	28	0	3	3	32	0	4	0	14	16	2	0	.02
Fort Massachusetts	59.00	74.01	50.03	61.05	86	38	48	2	14	5	5	22	27	15	0	9	21	9	0	.95
Fort Defiance	61.43	78.03	66.17	68.54	87	54	33	6	7	2	4	10	15	35	11	17	13	5	0	.45
Fort Yuma	79.96	100.93	85.46	88.78	114	73	41	0	9	6	25	12	19	14	5	27	3	0	0	0
San Diego	67.03	80.63	66.96	71.53	92	60	32	0	2	18	11	3	34	22	0	16	14	0	0	0
Fort Tejon	66.66	80.96	73.00	73.54	97	55	42	3	13	14	15	26	6	9	4	26	4	0	0	0
Fort Miller	71.56	91.90	79.03	80.83	109	58	51	11	4	2	6	27	12	25	3	25	5	0	0	0
San Francisco	56.66	64.56	55.03	58.75	88	52	36	0	0	0	0	2	65	24	1	16	14	2	0	.11
Benicia Barracks	60.33	80.61	64.23	68.39	102	53	49	0	0	0	0	9	6	84	0	25	5	1	0	.12
Fort Humboldt	58.06	64.20	58.36	60.20	75	55	20	32	7	1	1	2	7	3	1	14	16	5	0	.50
Fort Jones	57.00	81.23	67.33	68.52	97	49	48	16	16	6	13	2	13	5	19	20	10	3	0	1.86
Fort Umpqua	60.23	66.20	57.40	61.27	82	53	39	0	2	1	1	0	36	0	49	18	12	9	0	2.98
Fort Yamhill	52.51	67.41	53.64	57.85	92	48	44	3	0	2	0	0	21	11	36	21	9	6	0	1.28
Fort Vancouver	60.63	73.00	60.36	64.66	98	50	48	0	1	5	2	3	14	31	11	16	14	8	0	2.09
Fort Dalles	63.00	77.03	64.86	68.29	101	55	46	4	13	0	3	0	12	14	40	19	11	4	0	1.02
Fort Hoskins	56.40	73.66	57.00	62.32	96	49	47	3	13	3	3	10	13	10	35	15	15	7	0	1.80
Fort Steilacoom	52.30	65.50	55.20	57.66	89	45	44	1	5	3	2	14	21	34	7	7	23	8	0	1.73
Fort Walla-Walla	65.85	85.40	67.75	73.00	101	54	47	0	7	0	5	0	59	2	17	23	7	9	0	1.40
Fort Bellingham	59.23	73.06	60.79	64.33	91	55	36	....	....	....	....	....	....	....	....	22	8	5	0	.75
Fort Simcoe	61.23	78.33	63.23	67.60	104	52	52	30	1	11	2	0	1	16	15	21	9	3	0	.04

Observations first twenty one days only.

MONTH OF JULY, 1857.

STATIONS	THERMOMETER: MEAN TEMPERATURE 7 A. M.	2 P. M.	9 P. M.	Mean.	RANGE: Max.	Min.	Range	WINDS: DIRECTION. NO. OF OBSERVATIONS. N.	NE.	E.	SE.	S.	SW.	W.	NW.	WEATHER. DAYS. Fair.	Cldy.	DAYS. Rain.	Snow.	RAIN & SNOW. Inches & Hundredths.
Kennebec Arsenal	67.00	80.45	64.32	70.59	89	54	35	7	5	15	9	38	3	8	6	15	16	14	0	1.95
Fort Independence	68.45	78.19	69.29	71.97	88	56	32	5	17	12	9	13	31	4	2	19	12	16	0	4.65
Fort Hamilton	68.29	77.51	68.35	71.38	86	54	32	2	15	8	12	14	32	7	3	8	23	7	0	5.45
Fort Columbus	70.20	79.67	71.93	73.95	89	54	35	2	22	7	11	15	31	1	4	14	17	8	0	4.50
West Point	71.32	78.09	73.30	74.23	87	57	30	27	3	0	8	47	2	2	3	10	12	9	0	2.94
Allegany Arsenal	68.57	81.52	70.61	73.63	92	57	35	24	13	3	11	16	11	9	3	13	18	14	0	2.89
Carlisle Barracks	69.50	78.45	72.97	73.30	87	58	29	0	1	2	18	30	6	31	1	18	13	10	0	2.82
Fort Delaware	76.03	84.09	73.06	77.39	95	53	42	8	9	25	3	14	0	6	27	26	5	2	0	1.30
Fort McHenry	71.70	80.45	73.90	75.35	89	58	31	14	5	12	1	31	8	9	6	16	15	9	0	2.15
Fort Monroe	75.40	79.00	75.00	76.45	90	76	14	0	17	16	19	8	24	2	4	13	18	9	0	4.55
Fort Moultrie	76.87	81.55	77.55	78.65	86	65	21	15	19	9	13	20	19	0	7	9	22	16	0	8.25
Fort Capron	82.00	85.10	79.93	82.31	93	75	18	2	2	24	33	5	17	7	1	20	11	16	0	4.82
Key West Barracks	81.16	83.74	80.45	81.78	88	72	16	0	5	25	30	17	6	7	3	3	28	10	0	12.39
Fort Myers	77.26	88.58	78.42	81.42	91	71	23	16	4	19	0	13	1	39	1	1	30	21	0	8.67
Fort Dallas	78.90	84.64	81.00	81.51	87	71	16	0	9	31	17	19	1	10	0	14	17	17	0	12.60
Fort Desmand	77.51	86.12	79.61	81.09	92	73	19	0	61	0	1	0	25	1	0	17	14	29	0	4.31
Fort Brooke	79.86	84.83	77.58	80.75	90	72	18	1	24	17	21	15	8	4	3	20	6	16	0	7.41
Mount Vernon Arsenal	77.90	84.74	76.96	79.86	92	68	24	19	23	11	18	3	3	12	4	13	18	18	0	3.85
New Orleans	79.64	83.48	82.29	81.80	88	74	14	7	9	14	36	3	12	1	12	20	11	16	0	5.86
Baton Rouge	75.64	84.83	78.35	79.60	92	67	25	3	36	18	5	4	11	16	0	5	25	16	0	5.19
Fort Washita	76.16	87.45	79.29	80.96	99	70	29	5	15	9	13	12	3	4	0	12	19	4	0	2.97
Fort Smith	72.93	87.16	79.06	79.68	100	62	38	5	7	29	13	19	5	3	3	23	8	5	0	4.20
Jefferson Barracks	73.40	90.06	75.61	79.69	100	64	36	0	4	9	34	25	17	1	3	23	8	3	0	5.95
Newport Barracks	68.80	78.96	74.09	73.95	89	57	32	8	4	5	7	4	54	3	8	10	21	7	0	4.10
Fort Snelling	68.80	84.09	73.38	75.42	91	62	29	13	10	1	14	18	16	1	17	27	4	3	0	.65
Fort Ridgely	67.38	82.90	69.41	73.23	96	58	38	0	3	12	6	6	6	6	9	22	9	4	0	1.45
Fort Leavenworth	77.93	89.87	79.70	82.50	103	68	35	3	19	3	25	20	8	0	5	23	8	5	0	1.87
Fort Riley	77.35	90.16	78.55	82.02	105	64	41	11	3	5	8	56	5	2	3	25	6	5	0	5.20
Fort Kearny	71.48	86.09	70.77	76.11	102	55	47	11	8	8	8	26	9	18	5	19	12	8	0	8.50
Fort Laramie	67.55	86.84	72.51	75.63	98	58	40	20	5	10	13	12	0	23	10	27	4	2	0	.04
Fort Randall	69.35	88.00	71.74	76.36	100	61	39	11	5	13	20	32	7	2	2	24	7	8	0	1.94
Fort Arbuckle	76.51	90.51	76.64	81.22	106	62	44	0	8	34	26	20	2	0	3	25	6	9	0	8.64
Fort Belknap	81.83	94.00	81.04	85.62	106	71	35	2	5	3	24	53	4	0	2	20	11	7	0	6.42
Fort Chadbourne	73.61	91.64	81.46	82.29	104	65	39	5	0	15	28	30	2	1	3	15	16	8	0	.90
Fort McKavett	71.80	89.90	79.90	80.53	100	65	35	0	6	4	61	15	4	1	2	13	18	6	0	.98
Fort Mason	77.74	93.83	81.03	84.20	106	66	40	2	1	5	11	59	10	1	4	18	13	4	0	2.41
Fort Brown	80.61	89.48	80.16	83.41	95	71	24	0	0	13	72	7	1	0	0	24	7	6	0	3.25
Fort Lancaster	74.00	89.13	78.87	80.66	101	64	37	2	2	2	11	71	0	1	0	9	22	2	0	1.81
Camp Verde	78.90	93.09	77.03	83.02	102	68	34	0	7	5	43	14	11	0	1	21	10	6	0	1.03
Camp Colorado	78.50	95.20	80.74	84.81	107	72	35	1	6	16	10	4	7	6	0	8	17	6	0	.41
Ringgold Barracks	82.16	93.83	80.90	85.63	100	70	30	0	2	7	83	1	0	0	0	24	7	6	0	1.67
Camp Cooper	79.82	98.51	80.63	86.32	115	72	43	0	0	0	6	5	5	2	2	18	13	5	0	9.30
Fort McIntosh	79.71	94.67	84.87	86.41	102	72	30	0	0	10	68	15	0	0	0	17	14	7	0	1.29
Fort Duncan	79.77	96.77	85.77	87.42	105	72	33	0	1	0	53	0	0	0	0	6	25	1	0	.36
Fort Davis	70.63	86.32	70.84	75.93	96	61	35	3	0	1	0	10	12	11	12	16	15	9	0	6.41
Fort Bliss	76.03	95.42	80.81	84.08	102	72	30	0	2	20	33	11	11	10	6	18	13	5	0	1.52

MONTH OF JULY, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION. NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy	Rain.	Snow.	Amount in inches.
Fort Thorn	70.67	94.45	74.67	79.93	104	63	41	3	14	15	3	1	6	50	1	22	9	9	0	4.70
Fort Fillmore	80.22	93.58	80.48	84.76	104	70	34	0	0	15	23	29	6	20	0	16	15	4	0	.43
Fort Craig	76.12	100.21	77.19	84.50	112	62	50	4	9	6	17	15	23	10	9	22	9	11	0	2.38
Fort Stanton	63.46	75.33	68.26	69.01	83	55	28	2	4	31	17	0	18	13	3	7	24	19	0	4.88
Albuquerque	75.48	97.87	61.30	78.21	105	55	50	0	1	3	9	50	5	25	0	22	9	3	0	.35
Fort Marcy	65.40	80.13	69.03	71.52	91	59	32	9	16	10	15	6	19	8	9	20	11	9	0	.44
Fort Union	65.90	79.03	63.06	69.33	96	55	41	2	7	6	29	24	7	7	20	21	10	9	0	4.03
Cantonment Burgwin	67.74	84.16	60.55	70.80	94	50	44	26	0	8	0	28	0	13	0	19	12	6	0	.13
Fort Massachusetts	64.45	80.63	53.04	66.04	89	48	41	5	10	4	3	21	21	16	6	16	15	6	0	.72
Fort Defiance	66.29	83.74	70.39	73.47	90	58	32	7	4	3	9	12	12	38	8	16	15	6	0	1.30
Fort Tejon	67.13	84.23	75.18	75.51	93	57	36	1	5	11	22	10	3	26	11	26	5	1	0	.07
Fort Miller	74.97	97.06	82.45	84.82	101	62	39	13	2	3	10	11	20	23	11	26	5	0	0	0
San Francisco	55.19	63.03	54.77	57.66	67	51	16	0	0	0	0	0	76	17	0	15	16	0	0	0
Benicia Barracks	59.35	82.46	65.06	68.96	94	57	37	0	0	0	0	0	0	90	3	31	0	0	0	0
Fort Humboldt	57.61	62.74	56.71	59.02	65	54	11	17	3	0	1	2	11	0	19	19	12	0	0	0
Fort Umpqua	58.93	65.61	57.32	60.62	73	53	20	0	3	0	0	0	8	0	80	20	11	0	0	0
Fort Yamhill	57.50	73.42	55.93	62.28	95	50	45	0	0	0	0	0	18	0	58	24	7	1	0	.05
Fort Dalles	65.54	82.19	68.45	72.06	103	60	43	2	15	1	4	0	10	17	39	25	6	4	0	.58
Fort Hoskins	55.35	80.32	59.06	64.09	100	45	55	9	6	6	0	5	24	23	20	22	9	1	0	.13
Fort Steilacoom	53.16	71.20	59.81	61.39	90	45	45	6	8	1	0	10	29	33	5	7	24	2	0	.10
Fort Walla Walla	63.25	84.96	64.38	70.87	100	58	42	0	9	0	15	0	61	0	8	23	8	6	0	1.28
Fort Bellingham	59.64	73.03	60.48	64.38	84	57	27	....	....	....	....	....	....	....	....	23	8	1	0	.33
Fort Simcoe	65.58	81.97	65.29	70.28	102	52	50	2	7	11	5	17	13	22	5	23	8	3	0	.11

* Observations taken for twenty five days only.

MONTH OF AUGUST, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION. NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy.	Rain.	Snow.	
Kennebec Arsenal	61.32	73.80	64.77	65.63	87	53	34	9	5	7	8	40	10	10	7	26	25	11	0	5.59
Fort Independence	66.22	77.12	68.38	70.64	91	57	34	3	11	16	14	14	14	12	9	20	11	13	0	5.91
Fort Hamilton	66.70	76.26	68.22	70.63	89	58	31	6	8	3	6	5	28	5	32	15	16	10	0	3.21
Fort Adams	68.00	73.10	65.81	68.97	89	52	37	4	0	4	26	10	29	15	5	24	7	7	0	2.60
Fort Columbus	68.87	78.22	70.96	72.68	91	59	32	2	4	10	7	8	25	23	15	15	16	6	0	4.30
West Point	69.41	76.25	72.09	72.59	88	60	28	16	1	10	5	28	8	13	12	24	7	8	0	3.97
Allegheny Arsenal	66.09	77.64	68.12	70.61	90	53	37	22	8	5	7	17	6	21	5	10	15	12	0	4.65
Carlisle Barracks	67.71	78.03	71.30	72.34	92	56	36	0	0	5	9	21	4	34	0	26	5	6	0	2.91
Fort Delaware	73.85	80.25	72.03	75.37	91	63	28	31	2	10	0	15	0	19	15	25	1	4	0	3.00
Fort McHenry	70.58	80.51	72.12	74.40	92	63	29	12	4	13	8	13	13	23	7	17	14	10	0	4.43
Fort Monroe	76.64	82.25	77.22	78.70	95	70	25	1	25	7	10	3	34	1	6	20	11	5	0	4.20
Fort Moultrie	78.55	83.13	79.45	80.38	90	68	22	8	8	9	2	22	29	13	2	22	9	8	0	6.18
Fort Capron	81.71	86.00	80.90	82.85	89	76	13	4	12	18	3	3	12	6	2	26	5	11	0	3.99
Key West Barracks	82.00	85.81	81.93	82.24	90	77	13	4	6	28	25	19	3	5	1	4	27	12	0	4.25
Fort Myers	77.61	88.71	79.61	81.97	94	74	20	27	4	20	2	21	4	14	4	2	29	15	0	9.27
Fort Dallas	80.38	86.38	82.38	83.48	89	76	13	0	9	32	28	2	4	5	3	22	9	10	0	6.56
Fort Dynamd	77.93	85.51	79.64	81.02	90	75	15	3	49	10	0	2	18	7	4	20	11	19	0	10.73
Fort Brooke	78.45	87.38	79.03	81.62	90	73	17	0	12	19	29	13	12	4	3	28	3	8	0	6.39
Mount Vernon Arsenal	75.58	84.81	75.58	78.65	91	69	22	6	17	8	21	9	13	9	10	15	16	14	0	9.33
New Orleans	80.16	83.06	82.19	81.80	87	78	9	8	7	9	31	8	18	6	4	16	15	19	0	4.64
Baton Rouge	76.35	84.70	78.64	79.89	89	69	20	5	25	25	10	11	9	7	1	4	27	17	0	6.48
Fort Washita	74.77	85.38	77.90	79.35	92	62	30	7	13	11	8	17	1	1	0	10	21	9	0	4.61
Fort Smith	71.54	81.03	75.38	75.98	93	59	34	4	8	40	14	10	2	6	1	21	10	4	0	5.45
Jefferson Barracks	71.19	84.87	72.87	76.31	96	55	41	0	3	22	50	0	9	5	4	20	11	4	0	2.77
Newport Barracks	68.80	78.64	73.54	73.66	88	56	32	2	13	3	4	28	30	15	2	13	18	6	0	4.25
Fort Snelling	63.51	77.74	68.07	69.77	90	50	40	12	10	6	11	20	17	2	15	21	9	5	0	2.03
Fort Ridgely	61.06	76.41	64.61	67.36	89	44	45	1	7	16	15	14	5	25	2	17	14	4	0	3.25
Fort Leavenworth	73.90	86.16	77.25	79.10	99	59	40	2	6	2	7	23	26	10	17	24	7	4	0	3.81
Fort Riley	74.10	83.61	74.19	77.33	95	61	34	13	5	3	8	45	8	4	7	21	10	8	0	4.37
Fort Laramie	66.00	82.83	71.58	73.47	97	56	41	25	7	9	2	7	1	20	29	26	5	3	0	1.87
Fort Randall	65.96	84.58	69.74	73.42	104	48	56	12	7	19	21	14	8	2	10	24	7	4	0	1.14
Fort Kearny	63.06	80.64	67.09	71.26	96	48	48	14	8	4	1	27	2	14	22	21	10	5	0	4.39
Fort Arbuckle	73.64	86.09	71.16	76.96	95	58	37	6	8	44	23	6	1	1	4	24	7	12	0	6.18
Fort Belknap	89.58	90.22	79.25	83.35	99	69	29	3	0	0	12	78	0	6	0	19	12	8	0	6.42
Fort Chadbourne	73.48	99.77	80.26	81.50	101	63	38	9	1	13	18	23	4	0	5	12	19	10	0	2.02
Fort McKavett	72.29	99.83	79.19	80.77	101	68	33	1	19	3	50	13	5	0	2	12	19	6	0	3.58
San Antonio	82.81	92.10	85.70	86.87	98	8	90	0	3	5	29	52	2	1	0	18	13	5	0	2.60
Fort Mason	76.35	90.70	82.87	83.30	98	70	28	1	5	4	20	42	15	4	2	16	15	7	0	3.34
Fort Brown	81.96	91.70	81.22	84.96	95	76	21	1	0	14	60	18	0	0	0	24	7	3	0	.65
Fort Lancaster	74.09	91.58	79.67	81.78	106	65	40	10	3	10	8	56	0	1	1	9	22	6	0	4.23
Camp Verde	76.25	94.21	79.03	83.16	102	64	38	1	4	8	10	12	12	0	5	22	9	8	0	2.77
Camp Colorado	77.32	92.74	78.16	82.74	104	68	36	2	4	19	21	14	1	2	0	7	24	11	0	2.89
Ringgold Barracks	82.93	97.61	81.96	87.50	104	75	29	0	4	7	77	5	0	0	0	24	7	4	0	1.13
Camp Cooper	76.00	99.69	77.90	81.53	103	65	38	0	2	1	1	4	7	2	2	19	12	6	0	9.35
Fort McIntosh	81.22	98.29	86.77	88.77	105	75	30	1	0	11	64	15	2	0	0	17	14	3	0	.82
Fort Clark	78.51	94.71	83.13	86.45	103	72	31	1	1	73	6	11	0	0	0	25	6	4	0	.71

MONTH OF AUGUST, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain	Snow	Amount in inches.
Fort Duncan	80.13	96.80	85.00	87.31	104	74	30	0	5	0	52	0	0	0	0	8	23	4	0	3.50
Fort Davis	69.84	84.90	73.61	76.12	91	61	27	0	0	0	0	8	25	11	3	20	11	10	0	2.58
Fort Bliss	73.16	90.39	77.13	80.56	99	64	35	0	0	20	16	15	15	24	3	17	14	7	0	3.73
Fort Buchanan	76.03	87.77	72.73	78.67	97	68	29	3	5	12	17	13	28	13	2	15	16	16	0	10.60
Fort Thorn	68.00	90.19	66.45	74.88	103	60	43	3	9	8	11	6	1	30	5	23	8	6	0	5.10
Fort Fillmore	77.41	88.48	79.58	81.82	99	69	30	0	0	22	31	22	8	10	0	16	15	9	0	3.68
Fort Craig	73.12	89.03	72.16	78.10	102	65	37	10	4	5	13	18	22	15	5	26	5	9	0	3.59
Fort Stanton	64.23	73.03	66.23	67.83	82	57	25	1	9	30	8	1	11	23	7	8	23	11	0	9.24
Albuquerque	70.22	95.93	69.00	78.38	105	64	41	5	9	15	3	25	1	17	18	19	12	6	0	.77
Fort Marcy	63.03	73.74	69.64	68.79	81	56	25	12	20	16	8	10	13	8	7	20	11	8	0	1.55
Fort Union	64.51	76.84	61.29	67.56	93	55	38	3	6	13	29	5	9	3	34	18	13	9	0	2.96
Cantonment Burgwin	61.16	78.93	59.35	66.48	91	45	46	20	0	9	2	35	0	9	0	11	20	12	0	.21
Fort Massachusetts	55.06	75.05	58.05	63.72	81	46	38	7	11	15	13	10	16	15	5	12	19	6	0	3.98
Fort Defiance	64.80	79.97	68.48	71.08	91	51	40	25	1	7	2	7	6	27	18	12	19	10	0	1.78
Fort Yuma	85.93	105.54	90.64	94.03	112	80	32	0	6	11	39	16	15	4	2	26	5	0	0	0
San Diego	69.45	83.61	72.06	75.06	97	63	34	0	0	22	9	0	35	27	0	24	7	0	0	0
Fort Tejon	70.32	88.84	79.13	79.43	97	63	34	6	14	6	19	8	18	12	10	26	5	4	0	.12
Fort Miller	75.35	97.29	84.77	85.80	106	66	40	19	4	8	12	5	12	26	7	21	10	0	0	0
San Francisco	51.81	63.16	54.77	57.59	82	52	30	0	0	0	0	0	80	13	0	11	20	0	0	0
Benicia Barracks	59.35	80.68	63.16	67.73	105	53	52	0	0	0	0	0	0	93	0	31	0	0	0	0
Fort Humboldt	54.35	61.00	55.54	56.96	65	50	15	18	0	0	2	7	4	0	16	13	18	0	0	9
Fort Jones	53.90	91.90	73.40	73.06	100	42	58	9	36	0	22	8	0	0	18	31	0	0	0	0
Fort Umpqua	54.64	64.00	55.70	58.11	70	49	21	0	0	0	0	3	9	0	72	18	13	1	0	.10
Fort Yamhill	51.03	74.09	55.04	60.05	89	44	45	0	0	0	0	0	2	0	60	28	3	1	0	.10
Fort Vancouver	59.93	78.45	62.77	67.05	88	55	33	0	0	2	3	0	3	51	7	26	5	1	0	.14
Fort Dalles	61.96	83.54	69.09	71.53	94	56	38	2	19	1	0	0	15	19	29	31	0	0	0	0
Fort Hoskins	53.38	81.32	58.87	64.19	90	47	43	17	6	8	2	5	14	23	18	27	4	1	0	.10
Fort Steilacoom	51.58	71.90	60.06	61.18	82	47	35	2	23	5	1	1	24	12	25	7	24	2	0	.30
Fort Walla-Walla	68.16	90.93	68.41	75.83	99	51	35	0	9	0	5	0	56	5	18	31	0	0	0	0
Fort Bellingham	57.45	69.61	59.58	62.21	79	52	27	....	....	....	....	....	....	....	....	21	10	2	0	.24
Fort Simcoe	64.03	83.29	64.87	70.73	93	55	38	1	1	23	8	22	13	12	0	31	0	0	0	0

MONTH OF SEPTEMBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max	Min.	Range	N	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches
Kennebec Arsenal	53.56	68.66	54.66	58.96	88	37	51	5	7	9	4	27	17	14	7	21	9	6	0	1.09
Fort Independence	59.23	70.36	61.00	63.53	88	43	45	13	18	6	9	4	18	5	17	23	7	5	0	1.76
Fort Hamilton	59.30	70.13	61.80	63.74	80	42	38	9	12	7	3	9	21	5	24	17	13	5	0	3.18
Fort Adams	62 36	66.50	61.10	63.32	77	43	34	1	14	5	13	3	27	12	15	22	8	5	0	1 40
Fort Columbus	61.66	71.56	61.30	64.84	82	40	42	10	13	3	10	14	23	7	10	17	13	9	0	3.05
West Point	62.03	70.80	65.80	66.21	83	48	35	8	2	5	16	22	7	8	22	21	9	3	0	4.46
Alleghany Arsenal	59.40	72.43	62.60	64.81	87	46	41	15	15	2	13	12	11	16	6	17	13	8	0	2.20
Carlisle Barracks	59.86	72.90	65.26	66.02	90	40	50	0	0	14	7	31	3	29	6	22	8	5	0	1.50
Fort Delaware	64.63	73.80	65.13	67.76	85	53	32	17	5	17	6	14	5	7	19	23	7	1	0	1.00
Fort McHenry	63.33	75.33	67.20	68.61	89	47	42	18	11	11	9	12	8	11	10	19	11	2	0	1.40
Fort Monroe	71.97	75.33	72.20	73.17	87	55	32	1	52	2	8	2	10	1	11	18	12	5	0	5.90
Fort Moultrie	73.33	80.16	76.16	76.55	88	56	32	38	16	6	7	10	4	5	1	25	5	3	0	1.00
Fort Capron	79.97	85.83	81.03	82.27	90	70	20	5	30	25	13	0	7	7	0	21	9	15	0	6.47
Fort Myers	75.23	87.29	78.16	80.22	91	72	19	41	9	21	0	0	0	19	0	8	22	5	0	6.10
Fort Dallas	79.76	86.03	82.06	82.61	89	75	14	0	43	19	12	8	2	5	1	23	7	15	0	6.23
Fort Brooke	75 93	84.73	76.33	78.99	91	72	19	1	30	19	6	9	5	13	7	25	3	5	0	1.97
Mount Vernon Arsenal	71.16	85.00	73.60	76.58	95	60	35	13	35	2	17	9	5	0	9	22	8	3	0	.17
New Orleans	77.66	82.20	80.60	80.15	87	70	17	18	37	17	17	0	1	0	0	26	4	5	0	2.55
Baton Rouge	71.06	83.16	75.10	76.44	90	61	29	24	26	22	9	5	3	2	0	13	17	4	0	.90
Fort Washita	68.86	80.29	72.80	73.95	86	55	31	9	5	11	7	20	1	1	4	9	21	9	0	1.64
Fort Smith	66.26	78.43	71.16	71.95	87	53	34	8	9	27	15	19	2	2	2	19	11	3	0	2.43
Jefferson Barracks	66.40	82.43	68.76	72.86	94	43	51	0	0	11	16	8	16	9	0	19	11	7	0	5.85
Newport Barracks	62.16	74.90	68.60	68.55	88	41	47	5	8	2	3	7	33	29	3	15	15	4	0	1.19
Fort Snelling	55.36	69.36	60.70	61.80	86	38	48	5	5	1	14	36	13	4	8	18	12	8	0	2.46
Fort Ridgely	53.63	68.50	57.73	59.95	87	35	52	7	1	4	3	18	11	35	5	21	9	9	0	3.95
Fort Leavenworth	67.63	79.66	70.73	72.67	93	49	44	5	0	0	0	15	18	30	20	22	8	6	0	1.46
Fort Riley	65.67	77.20	68.37	70.41	87	42	45	13	9	5	6	39	6	4	8	19	11	9	0	3.09
Fort Kearny	58.63	75.03	61.86	65.17	90	40	50	13	3	1	3	13	10	23	24	20	10	4	0	2.65
Fort Laramie	58.46	72.63	63.13	64.74	87	45	42	20	7	2	1	4	3	21	27	26	4	4	0	.10
Fort Randall	56.00	72.53	61.60	63 37	94	38	56	21	2	5	19	11	13	8	11	18	12	3	0	3.10
Fort Arbuckle	66.40	83.00	69.56	72.98	89	52	37	6	3	25	25	26	1	2	2	26	4	7	0	1.04
Fort Belknap	73.33	82.73	73.63	76.58	89	60	29	9	15	0	17	48	0	0	1	18	12	8	0	2.17
Fort Chadbourne	64.90	80.57	71.17	72.21	90	52	38	8	3	9	34	30	2	2	2	11	19	12	0	3.75
Fort McKavett	65.16	81.40	71.16	72.57	91	50	41	1	23	9	48	3	3	0	3	10	20	7	0	3.77
San Antonio	76.03	85.00	80.00	80.34	94	67	27	13	16	14	14	16	3	8	4	22	8	11	0	3.48
Fort Mason	70.90	80.30	74.70	75.30	91	58	33	1	8	5	24	45	0	3	4	17	13	9	0	8.66
Fort Brown	77.56	88.26	77.90	81.24	93	68	25	2	15	28	40	1	0	0	4	18	12	8	0	4.65
Fort Lancaster	67.46	82.53	71.10	78.69	89	49	40	4	1	4	13	61	0	0	0	7	23	5	0	5.85
Camp Verde	68.00	83.83	70.13	73.98	95	49	46	2	17	6	36	6	11	0	2	18	12	14	0	11.85
Camp Colorado	67.73	84.91	71.01	74.55	95	55	40	2	4	26	16	3	0	1	3	8	22	5	0	4.25
Ringgold Barracks	75.70	90.06	78.56	81.44	99	59	40	7	15	13	46	0	0	0	9	19	11	7	0	3.35
Camp Cooper	66.50	82.63	70.00	73.04	95	58	37	3	6	2	3	1	3	1	1	15	15	3	0	2.50
Fort McIntosh	76.26	90.10	80.56	82.30	98	62	36	2	17	7	51	6	2	2	3	13	17	5	0	2.32
Fort Clark	75.20	84.30	75.86	78.45	93	69	24	3	1	70	10	10	0	0	0	16	14	9	0	7.91
Fort Duncan	74.06	88.60	77.70	80.11	97	59	38	0	4	0	38	0	0	0	0	7	23	9	0	9.46
Fort Davis	64.45	74 93	67.90	69.14	82	50	32	5	0	0	0	0	4	21	12	16	14	13	0	4.28

MONTH OF SEPTEMBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Bliss	63.13	79.80	67.83	70.25	87	59	28	4	6	12	9	13	14	17	15	16	14	6	0	4.15
Fort Buchanan	74.30	86.63	70.17	77.03	95	57	38	0	0	8	25	7	31	9	0	21	9	11	0	4.76
Fort Thorn	58.20	78.03	61.43	65.88	87	47	40	0	3	4	14	3	6	59	1	17	13	9	0	6.13
Fort Fillmore	68.63	79.10	71.60	73.11	85	61	24	1	3	37	10	1	3	31	4	14	16	6	0	2.24
Fort Craig	64.00	76.56	65.43	68.66	84	58	26	23	7	0	4	17	15	14	10	23	7	3	0	3.79
Fort Stanton	51.40	62.00	54.46	55.95	69	41	28	1	6	15	10	0	11	32	11	11	19	10	0	6.14
Albuquerque	57.63	85.36	58.46	67.15	95	49	46	17	0	4	1	30	10	26	2	26	4	6	0	.78
Fort Marcy	45.50	65.36	61.02	60.29	72	45	27	5	13	15	25	9	5	6	12	23	7	8	0	1.28
Fort Union	51.03	68.53	53.30	58.61	80	41	39	7	3	8	21	6	11	6	28	23	7	7	0	4.33
Cantonment Burgwin	50.96	73.50	49.83	58.10	83	40	43	19	3	35	2	14	1	9	0	11	19	7	0	1.20
Fort Massachusetts	47.00	70.40	51.70	56.36	80	37	43	7	13	17	8	12	16	17	0	20	10	4	0	1.34
Fort Defiance	53.87	70.20	58.67	60.91	79	40	39	19	6	5	0	17	10	29	4	16	14	6	0	1.01
Fort Yuma	77.10	96.83	82.56	85.50	104	70	34	9	16	11	12	6	17	7	8	28	2	0	0	0
San Diego	62.40	77.80	67.63	69.27	96	53	43	1	7	20	15	2	23	22	0	17	13	0	0	0
Fort Tejon	59.63	78.60	68.66	68.96	90	50	40	13	6	0	8	10	31	18	4	28	2	0	0	0
Fort Miller	66.26	85.66	72.00	74.63	96	60	36	10	3	9	8	6	13	27	14	19	11	0	0	0
San Francisco	57.50	65.36	57.03	59.96	82	53	29	0	2	0	0	0	66	22	0	16	14	0	0	0
Benicia Barracks	62.96	82.00	67.96	70.96	96	54	42	0	2	5	0	1	0	81	1	26	4	0	0	0
Fort Humboldt	53.90	62.86	56.73	57.83	69	48	21	21	5	1	3	13	3	2	5	15	15	3	0	.55
Fort Jones	45.50	81.46	63.66	63.54	91	41	50	10	31	4	12	5	7	0	21	27	3	1	0	.60
Fort Umpqua	55.56	63.63	58.46	59.20	74	59	15	0	1	2	1	2	32	0	48	20	10	7	0	1.59
Fort Yamhill	47.01	69.46	55.20	57.22	87	42	45	0	0	2	0	3	21	3	22	19	11	11	0	1.68
Fort Vancouver	55.53	70.33	57.66	61.17	84	48	36	1	0	11	3	4	10	19	7	17	13	9	0	1.87
Fort Dalles	54.40	73.63	61.46	63.16	85	44	41	2	12	1	0	0	19	29	21	23	7	2	0	2.70
Fort Hoskins	51.26	74.03	56.46	60.57	87	40	47	15	17	10	2	5	8	10	23	19	11	6	0	1.95
Fort Steilacoom	48.46	67.30	52.66	56.14	85	30	55	1	4	3	2	7	31	31	11	8	22	6	0	2.73
Fort Walla-Walla	58.53	80.60	57.96	65.70	90	50	40	0	16	0	3	0	61	2	8	25	5	7	0	1.22
Fort Bellingham	52.70	64.20	55.40	57.43	72	46	26	11	15	0	34	3	15	1	11	17	13	12	0	2.81
Fort Simcoe	54.07	86.63	70.17	77.03	95	57	38	4	0	9	9	17	15	22	0	18	12	2	0	.03

*The measurement of rain at Fort Belknap for this month, as recorded in the original register, is 21.74 inches. There is good reason for believing that the decimal points have been incorrectly placed, and the record has been changed to 2.17 inches, which is probably a close approximation to the true amount. R. H. C.

MONTH OF OCTOBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair	Cl'dy.	Rain.	Snow.	Amount in inches.
Kennebec Arsenal	41.03	54.61	45.42	47.02	75	22	53	21	11	19	5	19	8	6	4	15	16	8	0	3.14
Fort Independence	47.96	57.38	50.93	52.09	83	74	9	21	14	7	4	5	12	10	20	15	16	6	0	4.22
Fort Adams	49.50	58.00	53.00	53.50	76	32	44	6	21	0	34	1	9	0	19	17	14	2	0	4.20
Fort Hamilton	49.87	58.67	51.83	53.46	71	36	35	19	21	8	4	0	8	3	30	12	19	3	1	2.87
Fort Columbus	51.22	57.97	56.77	53.32	70	35	35	13	29	6	4	9	9	8	15	12	19	2	1	4.10
West Point	51.55	58.30	54.61	54.82	71	51	20	9	2	17	11	2	9	23	24	18	13	8	0	5.40
Alleghany Arsenal	48.22	57.00	49.77	51.66	72	33	39	19	15	9	14	12	5	12	7	12	19	9	1	3.66
Carlisle Barracks	48.51	59.85	49.16	52.45	76	33	43	0	4	10	13	9	6	42	9	16	15	4	0	1.49
Fort Delaware	53.08	60.45	55.58	56.37	73	36	37	8	27	25	0	5	7	7	14	19	12	2	0	.30
Fort McHenry	51.19	62.51	55.20	56.26	75	45	30	21	9	1	4	10	12	17	16	14	17	5	0	2.89
Fort Monroe	59.20	63.20	59.74	60.71	72	44	28	4	35	2	5	4	16	8	15	15	16	6	0	2.90
Fort Moultrie	59.97	69.77	64.06	64.60	78	45	33	47	13	3	0	1	3	16	10	22	9	7	0	2.21
Fort Capron	70.03	79.39	72.52	73.98	86	54	32	12	31	7	3	2	3	17	18	20	11	11	0	3.29
Fort Myers	69.35	79.97	70.58	73.30	87	59	28	56	0	2	0	0	0	30	5	10	21	8	0	2.05
Fort Dallas	72.50	80.64	75.35	76.18	87	58	29	17	20	14	10	3	2	16	11	19	12	8	0	5.78
Mount Vernon Arsenal	58.58	71.83	62.19	60.86	85	45	40	14	37	4	8	2	1	1	26	17	14	5	0	3.33
New Orleans	67.64	71.42	70.25	69.77	79	57	22	28	24	23	8	0	2	0	8	18	13	4	0	5.01
Baton Rouge	61.12	71.74	64.83	65.90	82	48	34	14	35	24	11	2	1	2	4	8	23	9	0	2.40
Fort Washita	56.09	66.12	60.64	60.95	80	41	39	9	7	7	14	15	1	8	8	9	22	7	0	2.37
Fort Smith	53.38	65.32	58.54	59.03	77	39	38	10	15	36	10	7	3	6	6	15	16	5	0	5.05
Jefferson Barracks	49.16	63.51	53.77	55.48	84	24	60	0	7	29	27	0	9	4	17	15	16	6	0	5.18
Newport Barracks	48.80	59.64	54.25	54.23	73	31	42	26	8	1	4	16	17	12	9	11	20	7	0	4.06
Fort Snelling	42.64	55.51	47.41	48.52	76	23	53	6	3	9	10	24	11	3	25	14	17	0	0	0
Fort Ridgely	40.22	54.64	44.51	46.44	71	22	49	0	5	14	16	10	3	12	12	17	14	3	1	.39
Fort Leavenworth	50.51	62.44	53.38	55.41	77	32	45	2	20	6	7	15	14	17	12	18	13	5	0	2.01
Fort Riley	49.71	62.42	53.07	55.07	74	32	42	17	6	10	17	9	10	15	9	18	13	10	0	1.26
Fort Kearny	52.77	57.51	45.70	48.66	73	27	46	22	3	6	3	15	0	21	23	18	13	4	0	5.88
Fort Laramie	51.93	60.45	53.70	55.36	74	31	43	14	17	13	4	5	4	14	22	25	6	2	1	1.53
Fort Randall	51.80	57.93	47.09	48.94	70	24	46	10	7	9	21	14	11	6	15	16	15	7	2	2.04
Fort Arbuckle	53.22	67.38	56.70	59.10	85	36	49	15	9	12	31	9	6	3	8	19	12	8	0	3.66
Fort Belknap	62.22	69.45	62.83	64.83	79	44	35	27	2	1	19	32	0	3	9	15	16	13	0	1.55
Fort Chadbourne	54.64	69.87	60.71	61.74	88	41	47	18	2	5	26	18	1	3	29	16	15	11	0	2.87
Fort McKavett	57.16	71.70	61.12	63.32	83	42	41	6	24	5	31	9	5	0	13	7	24	9	0	3.55
San Antonio	64.77	77.26	68.97	73.33	85	48	37	49	14	5	8	3	4	2	8	19	12	6	0	2.15
Fort Mason	61.30	69.64	64.61	65.18	82	46	36	19	3	12	15	24	3	4	13	12	19	6	0	4.10
Fort Brown	71.32	81.61	73.09	75.34	91	57	34	27	9	12	31	9	0	0	5	15	16	13	0	4.65
Fort Lancaster	57.16	72.58	62.09	63.94	90	42	48	26	1	2	9	36	1	3	1	7	24	6	0	7.16
Camp Verde	56.58	73.09	61.09	63.59	84	37	47	9	5	1	22	9	15	16	9	15	16	7	0	3.96
Camp Colorado	57.16	72.09	60.22	63.15	82	42	40	2	4	23	15	1	1	17	12	7	24	15	0	2.56
Ringgold Barracks	67.70	82.12	70 77	73.53	94	49	45	12	5	6	31	3	0	0	36	13	18	7	0	1.76
Camp Cooper	55.31	65.92	59.00	60.09	78	42	36	2	4	0	0	0	0	0	3	10	21	13	0	6.75
Fort McIntosh	68.51	79.67	63.38	73.86	94	52	42	11	18	8	32	5	0	0	19	11	20	13	0	2.63
Fort Clark	66.80	74.42	66.81	69.34	83	59	24	13	3	53	8	12	0	4	0	17	14	7	0	1.62
Fort Duncan	65.03	77.77	69.00	70.62	79	51	28	0	8	9	15	0	0	0	11	6	25	1	0	2.52
Fort Davis	54.84	70.78	56.94	60.85	84	39	42	10	0	0	0	8	10	6	6	21	10	4	0	2.34
Fort Bliss	56.61	70.39	62.13	62.62	76	47	29	6	9	21	1	4	11	21	8	22	9	0	0	2.85

MONTH OF OCTOBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow.	Amount in inches.
Fort Buchanan	63.10	74.58	59.42	65.70	84	50	34	6	11	16	21	15	14	8	2	27	4	6	0	1.07
Fort Thorn	46.32	69.61	51.35	55.76	81	32	49	6	2	4	6	9	11	54	1	23	8	4	0	1.12
Fort Fillmore	57.70	71 51	63.22	64.14	82	50	32	15	12	25	13	0	6	13	9	19	12	6	0	2.41
Fort Craig	54.25	65.87	56.54	58.88	75	41	34	35	3	0	5	18	14	3	15	21	10	6	0	.92
Fort Stanton	40.61	53.48	44.74	46.27	62	29	33	2	1	7	10	0	6	53	32	13	18	7	0	2.59
Albuquerque	46.45	76.16	44.74	55.78	86	36	50	17	4	13	2	21	2	25	7	24	7	7	0	1.25
Fort Marcy, (Santa Fé)	42.03	56.53	51.16	49.90	67	30	37	6	9	5	19	7	15	19	13	23	8	6	2	1.40
Fort Union	39.09	56.41	42.38	45 96	72	27	45	10	6	9	20	7	6	7	28	24	7	3	3	3.32
Cantonment Burgwin	37.03	61.00	39.77	45.93	75	26	49	18	2	33	5	19	0	11	1	13	18	7	1	1.25
Fort Massachusetts	33.96	54.09	38.06	42.04	74	17	57	16	16	16	5	9	18	11	2	20	11	2	3	1.19
Fort Defiance	38.29	59.23	45.55	47.69	71	27	44	7	1	5	3	12	12	37	16	19	12	6	2	1.73
Fort Yuma	65.40	86.10	74.10	75.20	97	58	39	3	31	13	2	1	16	17	10	25	4	0	0	0
San Diego	54.90	74.00	60.64	63.18	86	46	40	0	11	21	8	0	17	32	4	19	12	2	0	.64
Fort Tejon	52.02	70.64	59.22	60.62	84	43	41	6	6	8	6	11	21	18	17	21	10	5	0	2.11
Fort Miller	58.13	72 90	64.35	65.13	83	52	31	13	7	13	17	4	11	19	9	17	14	2	0	1.03
San Francisco	55.51	64.45	56.74	58.90	79	51	28	2	4	0	3	3	42	36	3	16	15	3	0	.45
Benicia Barracks	58.90	76.58	63.45	66.31	88	53	35	0	0	19	4	1	10	59	0	25	6	1	0	.32
Fort Humboldt	50.67	62.00	54.67	55.78	72	42	30	17	2	3	12	8	5	1	6	16	15	6	0	.57
Fort Jones	35.48	70.75	49.98	52.03	88	24	64	11	22	2	18	5	14	5	16	26	5	1	0	.80
Fort Umpqua	52.96	63.70	54.51	57.06	75	45	30	7	23	5	12	6	20	0	9	20	11	7	0	2.10
Fort Yamhill	44.08	63.02	50.19	52.43	76	33	43	0	0	0	4	1	22	12	11	19	12	9	0	1.56
Fort Vancouver	47.93	62.96	50.32	53.73	70	37	33	0	5	13	4	3	6	18	4	14	17	6	0	.96
Fort Dalles	42.77	63.80	52.03	52.86	72	29	43	0	9	3	11	0	36	15	15	20	11	3	0	.25
Fort Hoskins	44.00	65.32	51.19	53.49	77	32	45	15	26	8	4	6	3	9	22	18	13	8	0	1.20
Fort Steilacoom	42.09	61.38	48.54	50.69	72	34	38	0	5	4	2	6	40	11	25	11	20	11	0	2.07
Fort Walla-Walla	45.42	76.68	44.87	55.65	88	30	58	0	10	0	6	1	59	3	14	29	2	4	0	.64
Fort Bellingham	48.29	58 58	50.00	52.29	69	37	32	13	21	0	31	12	6	4	6	16	15	12	0	2.02
Fort Simcoe	46.58	60.48	48.10	51.72	69	35	34	3	4	6	12	20	13	26	5	21	10	3	0	.32

*The amount of rain this month at Fort Belknap, as recorded in the original register, is 13.50 inches. It is believed that the lower part of the measuring scale may have been read in *tenths* instead of *hundredths* of an inch, and the amount has been calculated accordingly.

MONTH OF NOVEMBER, 1857.

STATIONS.	THERMOMETER							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Kennebec Arsenal	32.83	42.79	36.16	37.25	56	13	43	10	4	23	3	19	12	11	8	16	14	7	2	.30
Fort Independence	39.56	47.56	41.86	42.99	64	21	43	8	1	3	2	8	27	30	11	19	11	5	0	1.70
Fort Adams	41.33	47.73	44.30	44.48	63	18	45	10	8	5	11	7	18	6	23	15	15	7	0	1.45
Fort Hamilton	37.46	48.30	41.60	42.45	64	16	48	8	5	0	6	12	9	11	39	17	13	5	1	1.09
Fort Columbus	40.16	46.63	40.60	42.46	69	19	50	2	1	1	6	11	25	25	16	21	9	5	0	1.00
West Point	40.03	48.40	44.20	44.21	65	24	41	18	3	3	9	13	10	14	20	20	10	7	1	2.75
Alleghany Arsenal	34.63	44.80	37.66	39.03	77	9	68	5	9	6	19	12	20	15	4	12	18	12	6	3.52
Carlisle Barracks	32.93	46.03	36.56	38.50	75	11	64	0	2	2	14	11	9	37	15	21	9	8	2	2.48
Fort Delaware	38.28	50.85	43.36	44.16	69	20	39	13	6	3	3	25	1	15	24	23	7	1	2	.60
Fort McHenry	40.13	51.76	44.46	45.45	72	18	54	1	3	5	13	17	17	22	11	18	12	6	0	1.87
Fort Monroe	46.86	54.80	50.40	50.68	74	30	44	2	17	5	3	6	32	2	17	22	8	4	0	2.30
Fort Moultrie	52.56	62.90	57.30	57.58	75	27	48	15	15	10	4	11	7	12	16	24	6	5	0	2.52
Fort Capron	67.40	75.60	70.00	71.00	83	40	43	19	14	11	19	0	2	4	19	20	10	11	0	6.25
Key West Barracks	74.16	79.73	74.93	76.27	89	60	29	25	13	18	16	5	2	2	8	12	18	9	0	1.13
Fort Myers	64.83	77.90	66.23	69.65	89	42	47	59	0	11	4	0	0	16	0	18	12	0	0	0
Fort Dallas	70.86	78.58	74.26	74.56	86	52	34	20	24	18	12	5	0	6	5	24	6	6	0	3.79
Fort Brooke	61.86	77.30	65.46	68.21	88	35	53	14	21	19	15	2	5	6	8	25	5	1	0	2.74
Mount Vernon Arsenal	50.36	66.16	54.46	56.99	81	29	52	21	23	5	13	10	5	2	11	17	13	11	0	10.05
New Orleans	57.53	63.96	61.83	61.10	80	39	41	16	10	26	11	3	7	4	13	20	10	6	0	3.05
Baton Rouge	50.26	66.03	56.50	57.59	81	27	54	16	11	21	6	16	10	6	4	13	17	2	0	2.45
Fort Washita	43.03	54.83	49.03	48.99	84	24	60	14	9	9	8	17	8	4	18	10	20	9	0	4.58
Fort Smith	39.96	51.93	45.50	45.86	83	21	62	6	6	28	12	10	8	15	3	19	11	5	0	4.35
Jefferson Barracks	34.53	47.16	38.80	40.16	69	12	57	2	1	14	19	0	7	7	10	16	14	4	2	5.00
Newport Barracks	34.96	44.93	39.80	39.89	67	12	55	2	3	4	3	30	20	21	7	9	21	6	0	6.01
Fort Snelling	21.83	31.36	25.56	26.27	53	—11	64	4	2	2	4	23	21	6	20	12	18	2	2	5.75
Fort Ripley	19.60	29.50	23.66	24.25	48	—13	61	9	2	0	6	13	6	21	11	24	6	0	0	0
Fort Ridgely	21.80	32.56	25.50	26.62	57	— 5	62	2	0	16	5	6	5	36	20	15	15	3	4	2.84
Fort Leavenworth	32.33	43.66	36.40	37.47	65	8	57	8	23	5	6	0	8	14	26	17	13	5	7	5.85
Fort Riley	32.57	42.43	35.40	36.80	71	13	58	7	19	2	8	5	16	22	11	14	16	1	5	1.39
Fort Kearny	24.80	37.13	29.86	30.59	65	11	54	8	3	1	3	3	14	20	38	14	16	1	5	2.56
Fort Laramie	29.50	41.56	29.83	33.63	63	1	62	26	2	15	1	2	2	30	12	27	3	0	2	.05
Fort Randall	25.00	39.53	29.43	31.32	60	— 3	63	23	3	5	6	10	10	7	26	15	15	3	3	.85
Fort Arbuckle	39.63	54.60	41.50	46.24	83	20	63	16	9	9	20	11	3	14	8	19	11	6	1	5.22
Fort Belknap	43.56	59.43	49.60	50.86	82	30	52	39	0	0	6	45	0	0	0	19	11	7	0	7.30
Fort Chadbourne	41.30	59.77	47.83	49.63	85	24	61	13	2	5	12	18	4	16	66	19	11	9	0	1 12
Fort McKavett	45.96	62.23	51.43	53.20	84	28	56	1	16	2	17	9	19	5	21	12	18	3	0	1.42
San Antonio	53.66	73.00	57.53	61.39	88	34	54	58	5	11	6	5	2	0	2	19	11	7	0	8.88
Fort Mason	49.43	61.93	52.13	54.49	86	31	55	19	0	2	13	20	11	17	8	17	13	5	0	3.89
Fort Lancaster	41.30	61.70	49.33	50.77	83	26	57	32	5	1	8	23	3	4	4	16	14	4	0	2.71
Camp Verde	42.17	64.26	52.62	53.01	80	34	46	10	4	0	30	0	9	0	37	29	10	5	0	3.16
Camp Colorado	43.78	62.05	48.73	51.52	87	28	59	4	6	4	15	7	3	10	18	13	17	5	0	2.31
Fort Brown	63.76	76.33	65.33	68.47	86	43	43	18	0	7	27	25	0	0	13	15	15	3	0	.55
Ringgold Barracks	57.26	76.70	63.20	65.71	94	53	41	9	3	7	37	7	1	0	26	19	11	3	0	.88
Fort McIntosh	58.30	73.96	66.06	66.10	90	37	53	10	12	3	39	10	2	1	13	20	10	2	0	1.38
Fort Clark	57.80	67.90	58.00	62.23	82	43	39	12	4	47	4	16	0	7	0	22	8	6	0	.52
Fort Duncan	57.80	73.56	59.83	63.06	89	40	49	0	16	0	14	0	0	0	18	14	16	2	0	1.86

MONTH OF NOVEMBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION. NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Davis	45.37	63.73	47.70	52.26	73	29	44	13	0	0	0	9	7	7	11	24	6	0	0	0
Fort Bliss	51.06	66.96	55.53	57.85	75	39	36	3	3	8	5	1	11	36	20	26	4	2	0	.07
Fort Buchanan	44.07	61.60	41.10	48.92	75	28	47	1	7	23	16	11	26	0	6	28	2	3	0	1.97
Fort Thorn	32.23	64.06	42.36	46.21	75	14	61	5	4	5	4	3	18	12	9	23	7	1	0	0
Fort Fillmore	47.16	64.16	53.36	54.89	76	30	46	9	20	28	6	1	4	11	11	15	15	0	0	0
Fort Craig	35.00	54.83	43.60	44.47	71	18	53	28	13	3	5	14	7	8	12	19	11	1	0	.01
Fort Stanton	31.66	44.20	35.63	37.16	57	21	36	4	0	15	10	1	3	23	31	12	18	1	6	.87
Albuquerque	34.80	67.93	39.76	47.49	75	26	49	44	8	11	1	8	4	11	3	21	9	1	3	.10
Fort Marcy	33.80	41.73	37.40	37.56	53	20	33	1	17	7	14	2	20	7	22	16	14	2	6	.27
Fort Union	27.60	42.86	31.53	33.99	62	14	48	12	7	7	14	8	6	6	30	22	8	0	2	1.10
Cantonment Burgwin	26.10	44.40	30.40	33.63	64	8	56	21	1	31	2	19	1	12	3	5	25	1	5	1.95
Fort Massachusetts	18.90	32.53	21.00	24.14	49	1	48	19	7	2	2	16	22	13	9	12	18	0	8	2.03
Fort Defiance	26.37	39.50	32.73	32.87	58	0	58	8	5	5	4	15	12	36	5	15	15	1	9	4.30
Fort Yuma	54.46	72.43	65.16	64.01	83	47	36	10	15	6	6	0	13	20	20	25	3	0	0	0
San Diego	50.63	65.43	55.17	57.07	72	40	32	0	5	17	15	1	18	20	14	15	15	6	0	2.25
Fort Tejon	44.23	56.23	44.70	48.36	71	30	41	2	0	0	8	9	18	34	19	18	12	4	1	1.04
Fort Miller	46.33	61.83	53.06	53.74	73	38	35	8	8	24	14	9	7	14	6	11	19	4	0	3.90
San Francisco	51.00	57.83	53.00	53.94	65	41	21	10	6	0	8	4	25	25	11	15	15	11	0	2.84
Benicia Barracks	46.16	66.56	53.63	55.55	74	40	34	10	3	20	4	1	7	30	15	20	10	9	0	1.72
Fort Humboldt	46.36	55.46	49.73	50.51	61	31	30	10	3	1	16	12	11	1	4	19	11	3	0	3.13
Fort Jones	30.75	53.26	38.03	40.68	69	18	51	11	22	1	17	8	12	7	12	15	15	9	1	4.47
Fort Umpqua	47.90	55.40	49.46	50.92	64	38	26	1	32	5	19	2	25	0	3	17	13	13	0	6.46
Fort Vancouver	39.16	49.83	40.76	43.25	61	27	34	6	19	6	5	1	5	18	12	11	19	13	0	7.01
Fort Yamhill	38.16	50.16	42.48	43.61	60	27	33	0	10	9	7	5	26	5	5	15	15	14	0	7.58
Fort Dalles	36.23	49.83	40.83	42.29	64	27	37	1	16	11	12	3	16	14	9	14	16	7	0	5.38
Fort Hoskins	38.46	52.73	42.43	44.53	65	21	44	17	36	7	3	0	9	5	12	14	16	7	0	7.05
Fort Steilacoom	36.56	52.83	39.06	42.82	61	27	34	7	14	5	6	14	21	12	11	13	17	13	0	4.36
Fort Walla Walla	32.96	51.56	34.36	39.63	70	24	46	0	13	0	6	0	54	2	15	10	20	13	0	2.68
Fort Bellingham	38.80	49.89	42.60	43.76	56	30	26	33	8	2	23	15	4	4	9	20	10	10	2	2.70
Fort Simcoe	33.13	40.73	35.00	36.29	55	27	28	0	4	9	6	6	19	32	4	12	18	4	5	.73

MONTH OF DECEMBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Kennebec Arsenal	22.58	30.71	24.67	25.98	48	1	44	11	5	25	1	13	6	17	12	18	13	2	5	4.30
Fort Independence	32.12	39.00	33.22	34.77	54	13	41	14	11	4	17	6	6	13	22	17	14	10	3	4.48
Fort Adams	31.81	39.26	35.35	36.47	51	18	33	10	16	2	7	5	5	10	38	11	20	9	3	4.98
Fort Hamilton	35.00	41.48	36.61	37.69	58	15	43	11	16	11	6	0	2	1	46	14	17	8	2	3.87
Fort Columbus	35.32	42.42	33.00	36.91	49	15	34	3	16	2	7	2	18	20	24	11	20	3	1	2.90
West Point	35.42	43.30	39.13	39.28	51	18	33	26	1	2	9	15	12	13	11	18	13	5	3	5.55
Allegheny Arsenal	34.22	41.80	36.61	37.54	51	26	25	13	9	8	7	13	21	15	7	12	19	9	6	3.61
Carlisle Barracks	32.06	42.13	32.93	35.70	57	16	41	0	0	7	29	4	5	38	19	21	10	3	5	5.30
Fort Delaware	36.19	43.33	37.90	39.14	56	21	35	7	8	13	5	8	3	22	27	21	10	10	2	5.40
Fort McHenry	37.06	48.12	41.61	42.25	62	21	41	9	13	5	6	3	17	31	9	14	17	11	2	6.33
Fort Monroe	46.20	51.20	47.71	48.37	65	34	31	4	29	1	5	7	28	12	7	18	13	7	1	4.45
Fort Moultrie	52.71	59.12	55.00	55.71	72	39	33	39	9	6	5	16	5	15	7	18	13	7	0	5.81
Fort Capron	65.61	75.74	69.74	70.36	88	48	40	12	13	19	11	4	12	10	15	23	8	12	0	7.42
Key West Barracks	76.34	81.58	78.32	78.71	85	73	12	1	34	31	17	3	3	4	0	16	15	9	0	.90
Fort Myers	64.26	76.03	67.13	69.14	84	49	35	36	0	13	5	12	0	21	6	10	21	4	0	2.80
Fort Dallas	69.90	78.90	72.80	73.87	82	50	32	7	12	25	28	3	0	11	7	27	4	4	0	4.61
Fort Brooke	59.80	72.35	64.38	65.51	82	46	36	6	26	26	14	6	11	0	1	26	5	6	0	2.83
Mount Vernon Arsenal	50.64	63.42	53.13	55.73	74	30	44	15	27	1	6	13	8	4	19	16	15	16	0	6.39
New Orleans	55.51	60.16	58.74	58.13	78	43	35	10	15	23	11	3	4	3	22	16	15	12	0	5.10
Baton Rouge	48.77	62.09	54.67	55.17	77	34	43	8	7	30	2	18	1	17	10	13	18	13	0	8.55
Fort Washita	43.93	53.77	48.06	48.58	70	28	42	9	8	2	15	17	7	2	15	10	21	5	1	3.69
Fort Smith	40.35	53.87	45.41	46.54	74	27	47	2	6	34	16	8	6	17	1	18	13	5	0	1.60
Jefferson Barracks	35.16	48.74	39.25	41.05	65	25	40	0	12	12	41	1	9	3	15	18	13	7	1	2.18
Newport Barracks	36.48	43.83	39.54	39.95	60	27	33	3	2	19	0	29	23	4	13	10	21	6	0	4.10
Fort Snelling	21.29	31.35	23.64	25.42	47	4	43	14	1	2	8	23	22	3	13	15	16	1	9	2.95
Fort Ripley	15.19	25.87	19.35	20.13	37	— 3	40	11	5	0	2	15	1	8	7	25	6	0	5	.46
Fort Ridgely	19.64	29.12	23.48	24.08	43	— 4	47	3	2	10	9	17	0	34	11	17	14	0	5	.81
Fort Leavenworth	33.19	47.25	37.19	39.21	63	20	43	2	22	16	5	0	9	16	23	22	9	3	0	.60
Fort Riley	32.58	43.19	36.42	37.40	60	17	43	9	14	3	6	5	19	26	11	17	14	4	2	.20
Fort Kearny	25.16	37.00	28.70	30.28	56	10	46	6	6	1	0	10	32	15	23	19	12	0	3	.20
Fort Laramie	23.51	38.93	27.93	30.15	48	0	48	12	0	6	0	4	7	54	11	25	5	0	4	.06
Fort Randall	23.25	34.87	27.67	28.60	47	10	37	26	9	5	7	11	11	10	14	18	13	2	3	.20
Fort Arbuckle	39.03	53.42	44.25	45.56	69	24	45	13	8	11	12	18	10	7	12	20	11	4	1	5.19
Fort Belknap	38.66	57.77	43.74	46.72	72	26	46	0	3	0	15	75	0	0	0	20	11	7	0	4.56
Fort Chadbourne	37.26	55.06	43.90	45.41	70	22	48	4	1	3	11	24	3	17	39	16	15	7	1	2.99
Fort McKavett	41.12	56.03	45.83	47.66	74	26	48	1	8	0	23	12	19	1	29	8	23	7	2	4.25
San Antonio	49.22	65.90	52.97	56.03	77	34	43	65	16	0	9	0	0	0	3	19	12	9	0	11.09
Fort Mason	43.45	56.83	47.67	49.32	72	30	42	5	2	4	5	28	14	15	20	15	16	5	1	6.70
Fort Lancaster	37.51	55.41	44.35	45.79	73	24	49	25	2	7	1	28	1	6	6	14	17	5	1	7.20
Camp Verde	37.06	52.22	39.80	43.02	82	28	54	24	18	12	6	4	20	1	8	17	14	4	1	7.11
Camp Colorado	39.54	57.50	45.54	47.52	76	25	51	3	4	2	10	13	5	11	9	9	22	4	1	4.19
Fort Brown	56.77	69.61	60.64	62.34	83	39	44	1	9	19	20	12	2	2	28	18	13	5	0	2.55
Ringgold Barracks	52.06	67.83	56.93	58.94	89	31	49	11	10	14	22	4	3	6	23	15	16	3	0	.85
Fort McIntosh	52.48	65.93	58.09	58.83	78	35	43	12	8	8	33	9	4	0	19	15	16	8	0	4.52
Fort Clark*	51.86	58.33	52.20	54.13	72	36	36	20	5	46	0	19	0	1	2	18	13	9	0	23.03
Fort Duncan	51.16	65.48	53.35	56.66	77	39	38	0	2	1	10	0	0	0	22	14	17	8	0	5.57

MONTH OF DECEMBER, 1857.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	Amount in inches.
Fort Davis	38.83	54.67	41.09	44.86	71	24	47	8	4	0	0	5	18	2	3	24	7	0	2	.80
Fort Bliss	32.17	56.15	43.16	43.82	68	19	49	18	7	2	3	2	8	39	14	28	3	0	0	0
Fort Buchanan	31.60	53.32	34.35	39.76	78	20	58	5	33	21	11	6	11	0	3	29	2	1	0	.69
Fort Thorn	22.58	50.67	30.61	34.63	63	6	57	17	2	1	0	9	17	37	10	29	2	2	0	1.10
Fort Fillmore	31.83	52.35	39.96	41 38	65	18	47	18	21	17	2	0	1	19	12	20	11	1	0	.15
Fort Craig	22.35	44.96	31.13	32.48	59	8	51	30	8	3	10	9	9	12	12	26	5	2	1	.80
Fort Stanton	25.12	38.61	30.06	31.26	47	10	37	4	1	8	0	0	2	41	34	17	14	1	4	.59
Albuquerque	25.13	53.58	34.83	37.84	60	16	44	38	0	16	1	21	2	6	8	30	1	0	0	0
Fort Marcy	22.40	35.48	30.00	29.29	45	7	38	2	5	0	7	4	28	25	22	26	5	0	6	.24
Fort Union	22.71	40.60	26.79	30.04	54	10	44	10	10	5	11	8	8	5	36	30	1	0	2	.55
Cantonment Burgwin	10.67	35.74	19.77	22.06	46	-10	56	16	5	30	4	8	2	25	3	7	24	0	5	.86
Fort Massachusetts	5.58	23.96	10.64	13.38	39	—17	56	27	13	7	5	10	17	8	6	23	8	0	5	.67
Fort Defiance	13.58	33.68	22.48	23.24	42	— 2	44	12	3	4	2	9	11	36	16	24	7	0	7	1.07
Fort Yuma	48.29	63.64	56.06	55.99	70	42	28	15	24	2	0	2	9	12	29	30	1	0	0	0
San Diego	41.29	60.74	47.26	49.76	70	33	37	0	20	18	6	0	15	23	11	21	10	5	0	1.38
Fort Tejon	35.80	49.40	40.50	41.90	58	25	33	10	16	1	0	0	17	32	17	15	16	3	2	4.50
Fort Miller	42.00	54.35	46.16	47.51	65	32	33	10	8	32	9	7	10	14	3	10	21	1	0	.57
Fort Crook	29.06	40.48	32.30	33.94	46	22	24	0	11	0	16	0	11	3	22	11	20	0	7	3.77
San Francisco	46.54	53.80	48.80	49.71	58	42	16	14	23	2	14	4	8	9	19	15	16	4	0	2.90
Benicia Barracks	43.58	57.25	47.54	49.45	62	36	26	3	4	35	2	0	2	45	2	20	11	8	0	2.34
Fort Humboldt	44.30	54.35	47.25	48.63	60	30	30	6	4	4	16	13	2	3	9	13	18	8	0	7.80
Fort Jones	30.50	47.33	33.66	37.16	60	20	40	9	26	5	6	5	9	9	25	16	15	3	4	4.24
Fort Umpqua	46.54	52.43	47.74	48.92	57	35	22	0	12	11	35	2	24	3	6	9	22	25	0	12.60
Fort Yamhill	39.06	46.25	42.03	42.44	56	27	29	0	4	14	5	1	31	4	11	7	24	24	4	14.26
Fort Hoskins	39.09	47.45	40.77	42.87	55	25	30	6	11	1	18	3	24	8	20	6	25	18	0	15.72
Fort Vancouver	39.32	45.42	41.74	42.16	56	27	29	5	12	33	8	3	5	9	9	7	24	22	2	12.28
Fort Dalles	36.90	47.03	39.51	41.14	64	26	38	1	16	7	12	4	20	18	10	9	22	1	3	7.42
Fort Steilacoom	35.67	46.35	41.40	41.27	58	25	33	6	6	9	20	13	36	2	1	1	30	21	1	13.01
Fort Walla-Walla	34.29	46.77	34.87	38.61	34	29	5	0	9	0	37	0	41	0	4	19	12	14	1	3.15
Fort Bellingham	40.22	46.35	41.16	42.57	54	29	25	27	11	3	20	28	2	1	1	13	18	19	0	6.92
Fort Simcoe	33.60	38.91	36.55	36.35	52	24	28	....	....	....	....	....	....	....	....	.....	.....	.....	.....	.....
Camp Scott †	16.29	29.41	17.90	21.20	39	— 4	43	3	4	1	2	14	33	2	4	14	7	2	0	.10

* The register from Fort Clark shows that from 9, P. M., of the 2d to 11, A. M., of the 8th of this month the amount of rain was 14.80 inches.
† Observations of winds and weather for twenty-one days only, of the thermometer for the whole month.

MONTH OF JANUARY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS								DAYS		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair	Cl'dy.	Rain	Snow	
Kennebec Arsenal	18.72	28.09	22.06	22.95	46	— 1	47	18	18	12	6	8	16	6	9	22	9	3	3	3.55
Fort Independence	28.38	36.71	31.42	32.17	54	9	45	16	7	7	7	5	20	12	19	18	13	5	3	.68
Fort Adams	33.55	37.32	34.90	35.25	47	19	28	14	8	4	4	8	4	10	11	11	20	4	2	2.05
Fort Columbus	33.51	39.35	33.00	35.29	54	18	36	9	16	6	6	5	16	7	28	15	16	5	2	1.70
West Point	31.09	41.35	37.51	37.61	54	21	33	28	1	2	13	19	14	2	14	21	10	4	2	3.83
Fort Hamilton	32.54	39.41	35.70	35.89	52	15	37	21	9	11	2	0	6	3	11	11	20	1	4	2.61
Allegheny Arsenal	31.35	42.67	37.19	37.07	63	20	43	19	9	12	4	13	16	13	7	13	18	11	5	1.15
Carlisle Barracks	31.80	40.93	33.64	35.45	60	18	42	0	6	0	15	5	15	18	19	24	7	8	2	1.54
Fort Delaware	35.72	42.90	38.12	38.91	49	24	25	18	4	11	2	9	8	13	28	21	10	2	2	1.50
Fort McHenry	36.93	46.45	40.93	41.43	62	24	38	10	11	6	7	6	19	15	19	12	19	6	1	1.83
Fort Monroe	45.16	49.38	46.29	46.94	62	33	29	7	35	2	3	6	20	9	11	15	16	6	1	2.80
Fort Moultrie	52.41	58.96	55.16	55.51	69	39	30	26	29	7	5	3	13	13	6	14	17	6	0	2.03
Fort Capron	65.42	73.77	67.90	69.03	82	51	31	10	12	12	15	9	6	7	18	20	11	14	0	2.86
Key West Barracks	71.32	77.64	71.10	73.35	83	63	20	7	35	22	16	3	0	3	7	13	18	10	0	2.04
Fort Myers	63.00	75.62	64.84	67.82	84	52	32	18	1	21	3	1	0	10	3	13	18	4	0	1.20
Fort Dallas	68.41	76.74	71.81	73.32	84	50	34	12	20	29	6	19	2	3	2	23	8	4	0	6.87
Fort Brooke	57.54	71.54	62.67	63.90	79	47	32	9	33	21	18	3	2	1	6	25	6	4	0	1.12
Mount Vernon Arsenal	49.84	64.02	54.87	56.24	74	35	39	7	22	4	13	12	6	1	18	17	14	12	0	10.62
New Orleans	58.00	61.35	60.54	59.96	73	50	23	9	27	20	13	6	4	1	13	12	19	8	0	3.71
Baton Rouge	52.35	65.06	57.61	58.34	76	42	34	10	21	28	14	9	3	2	6	7	24	8	0	7.97
Fort Smith	38.25	53.03	44.15	45.14	65	24	41	6	5	33	19	6	10	12	2	18	13	3	0	5.80
Fort Washita	41.64	53.90	47.19	47.57	69	31	38	12	4	5	28	10	5	5	10	10	21	5	0	2.48
Jefferson Barracks	34.90	48.62	37.41	40.31	66	22	44	0	15	9	43	0	7	5	14	20	11	5	0	3.35
Newport Barracks	37.41	44.22	39.83	40.49	57	28	29	13	5	11	3	19	22	8	12	11	20	5	1	2.75
Fort Snelling	16.45	30.51	21.64	22.84	43	—15	58	12	4	3	18	25	7	4	10	13	18	4	1	1.61
Fort Ripley	11.75	25.45	16.93	18.04	42	—27	69	6	5	0	1	19	6	6	8	22	9	3	2	1.21
Fort Ridgely	17.32	28.87	23.06	23.08	45	7	38	1	3	20	17	10	4	23	15	19	12	4	8	.85
Fort Riley	32.87	45.84	37.13	38.61	58	15	43	8	4	5	11	17	18	26	1	21	10	4	1	1.24
Fort Leavenworth	34.12	48.12	38.19	40.14	62	10	52	9	12	4	33	4	7	11	13	19	12	6	0	2.38
Fort Laramie	20.38	42.32	35.09	32.59	52	5	47	4	2	7	5	7	8	48	12	29	2	0	0	0
Fort Kearny	22.61	39.93	28.29	30.27	58	10	48	6	2	1	7	11	17	15	34	16	15	6	0	1.45
Fort Randall	20.48	38.25	25.48	28.07	56	5	51	14	0	7	10	16	18	10	18	23	8	1	3	1.70
Fort Arbuckle	37.80	52.29	42.48	44.19	67	20	47	22	8	6	20	16	8	11	9	21	10	8	0	1.63
Fort Belknap	38.45	53.29	45.93	45.89	65	37	28	31	8	0	3	38	3	8	2	21	10	3	1	2.38
Fort Chadbourne	38.03	55.00	43.77	45.60	68	24	44	11	0	2	7	30	10	12	21	16	15	7	1	1.57
Fort McKavett	41.77	61.45	46.32	49.84	71	28	43	4	20	1	17	10	24	0	17	9	22	5	1	1.46
San Antonio	51.26	66.45	53.29	57.00	81	37	44	59	6	0	11	0	8	0	9	14	17	9	0	4.53
Fort Lancaster	41.06	55.48	43.87	46.81	70	22	48	23	2	2	7	14	1	6	5	14	17	4	1	2.95
Fort Mason	45.74	58.93	49.12	51.26	74	32	42	14	0	2	14	23	5	14	21	13	18	2	2	.46
Fort Brown	57.41	68.09	60.38	61.96	82	38	44	14	7	21	11	12	0	2	26	11	20	7	0	1.50
Ringgold Barracks	51.51	63.77	56.12	57.13	78	31	47	17	10	9	14	4	1	18	20	11	20	5	0	1.73
Fort McIntosh	51.51	65.25	56.71	57.82	85	34	51	12	16	7	22	4	3	2	27	10	21	8	0	1.97
Fort Clark	48.31	60.61	53.16	54.02	72	35	37	20	22	25	8	14	2	0	0	14	17	6	0	.63
Fort Duncan	49.64	65.94	53.83	56.47	79	38	41	0	0	13	16	0	0	2	18	8	23	2	0	.45
Fort Davis	40.10	53.00	47.38	46.21	68	24	44	8	8	2	7	3	5	3	8	23	8	3	2	3.00
Fort Bliss	33.13	57.22	43.97	44.77	67	17	50	5	5	7	3	2	10	52	9	26	5	2	0	.25

MONTH OF JANUARY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow	Amount in inches.
Fort Buchanan	28.87	55.33	33.33	39.17	71	18	53	5	43	22	8	4	10	0	1	23	8	4	2	1.97
Fort Thorn	22.16	51.58	32.51	35.41	61	7	54	11	8	5	1	1	12	30	12	22	9	2	0	1.30
Camp Colorado	40.27	56.95	45.56	47.59	70	24	46	3	3	1	14	13	7	14	14	7	24	6	0	2.72
Fort Fillmore	29.58	53.19	37.32	40.04	47	10	37	10	18	29	0	0	1	24	11	13	18	0	0	0
Fort Craig	25.19	47.83	34.41	35.81	58	9	49	31	10	6	3	10	11	11	11	23	8	0	0	0
Fort Stanton	24.74	38.90	29.83	31.15	46	7	39	9	3	4	3	1	7	44	20	12	19	0	6	.65
Albuquerque	20.77	58.80	25.45	35.00	65	14	51	35	10	13	1	20	3	5	5	29	2	0	0	0
Fort Marcy	21.30	36.20	29.60	29.00	42	0	42	3	24	5	15	0	20	8	18	21	7	0	5	.20
Fort Union	19.80	42.19	23.58	28.52	54	— 4	58	14	9	4	20	6	6	9	25	29	2	0	4	1.13
Cantonment Burgwin	5.54	34.90	16.03	18.82	45	—18	63	19	7	24	2	11	4	21	5	6	25	0	5	.72
Fort Massachusetts	5.09	25.29	9.45	13.28	39	—19	58	19	16	2	6	14	16	15	5	27	4	0	2	.54
Fort Defiance	12.84	35.16	21.26	23.08	47	— 3	50	11	4	5	6	14	11	27	15	21	10	0	6	.80
Fort Yuma	47.12	63.45	54.80	55.12	71	38	33	6	19	4	9	3	5	17	30	27	4	1	0	.....
Fort Tejon	36.68	51.22	41.93	43.27	69	26	43	0	0	0	0	0	46	42	5	21	10	3	3	2.60
Fort Crook	22.09	37.22	27.74	29.01	46	9	37	10	5	1	10	2	9	1	15	14	17	2	12	2 23
San Francisco	44.87	51.16	47.19	47.73	60	37	23	27	11	2	10	2	6	17	18	16	15	4	0	3.07
San Diego	40.58	61.35	47.09	49.67	73	31	42	1	15	15	15	0	26	14	7	19	12	6	0	1.87
Benicia Barracks	41.00	55.12	45.54	47.22	62	30	32	9	6	43	8	0	10	5	12	17	14	5	0	2.05
Fort Miller	37.26	48.67	43.16	43.03	56	31	25	4	8	39	11	4	6	17	4	7	24	2	1	2.36
Fort Humboldt	40.32	50.87	45.25	45.48	60	31	29	2	3	5	19	14	10	1	9	15	16	7	1	6.25
Fort Jones	24.26	43.61	29.61	32.49	54	10	44	4	30	19	6	0	7	11	12	11	20	0	6	6.15
Fort Vancouver	36.71	43.45	38.16	39.45	54	29	25	8	16	8	27	1	22	3	8	7	24	15	4	5.62
Fort Yamhill	36.00	42.09	37.22	38.43	53	25	28	0	5	16	7	3	23	1	8	9	22	15	7	9.18
Fort Dalles	32.06	43.12	35.16	36.78	53	20	33	6	18	3	10	4	23	20	7	13	18	12	1	5.60
Fort Hoskins	36.59	45.00	38.74	40.08	67	25	42	7	6	5	2	8	17	22	14	10	21	13	4	7.82
Fort Umpqua	43 50	50.19	44.48	46.13	59	36	23	0	7	26	8	0	36	5	11	18	13	20	0	11.70
Fort Steilacoom	32.26	44.93	35.80	37.99	54	24	30	12	12	3	17	14	17	7	11	1	30	14	3	8.36
Fort Walla-Walla	29.96	40.61	31.51	34.03	48	20	28	0	5	0	41	5	40	0	2	17	14	8	2	1.96
Fort Bellingham	38.84	43.83	40.22	40.96	55	27	28	14	6	2	27	37	4	1	2	14	17	13	6	3.72
Fort Simcoe	28.52	35.47	31.71	31.90	46	16	30	2	2	3	2	29	31	18	3	19	12	4	10	2.11
Camp Scott	11.42	29.22	14.51	18.38	41	— 7	48	10	4	2	0	22	51	2	2	26	5	0	5	32

MONTH OF FEBRUARY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW	
	MEAN TEMPERATURE.					RANGE.		DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy.	Rain.	Snow.	
Kennebec Arsenal	7.75	23.61	15.18	15.51	50	—16	66	10	10	1	1	5	22	17	15	22	6	0	3	2.25
Fort Independence	20.61	30.10	23.60	24.78	45	6	39	15	5	2	3	3	15	14	25	17	11	2	4	1.42
Fort Adams	23.14	30.53	25.67	26.44	43	8	35	6	10	1	5	5	1	4	32	13	15	3	4	1.41
Fort Hamilton	21.21	30.64	25.46	25.77	46	7	39	12	9	3	1	2	6	11	40	11	17	3	1	3.54
Fort Columbus	22.75	27.67	23.00	24.47	43	10	33	6	15	1	3	5	6	18	30	15	13	0	4	1.20
West Point	23.92	32.57	27.46	27.98	45	9	36	46	1	0	0	14	12	2	9	20	8	1	5	1.65
Allegheny Arsenal	20.85	31.28	25.25	25.79	50	— 4	54	10	12	4	1	11	12	15	16	11	17	4	3	2.78
Carlisle Barracks	20.21	32.03	24.10	25.44	47	—5	52	0	0	6	3	5	15	38	17	23	5	1	5	.95
Fort Delaware	25.53	32.78	27.71	28.67	45	10	35	6	17	2	3	15	3	4	34	20	8	1	4	.30
Fort McHenry	25.67	37.25	32.03	31.66	51	12	39	15	5	5	4	7	8	30	10	15	13	1	4	1.61
Fort Monroe	34.21	40.36	38.32	37.63	56	25	31	6	30	2	1	8	16	7	11	15	13	6	0	5.10
Fort Moultrie	44.60	53.00	49.14	48.91	66	35	31	24	6	2	5	10	7	19	11	16	12	5	0	6.70
Fort Capron	63.21	70.93	64.13	66.19	84	47	37	13	9	4	8	8	13	5	23	17	11	12	0	2.71
Key West Barracks	69.21	74.32	69.21	70.91	82	59	23	9	21	27	10	4	4	1	8	19	9	11	0	2.51
Fort Myers	60.46	72.39	64.82	65.89	83	49	34	25	3	13	0	6	1	25	1	10	18	10	0	5.16
Fort Dallas	64.28	74.71	70.14	69.71	81	48	33	6	13	14	10	23	6	6	6	22	6	5	0	3.30
Fort Deynaud	57.35	73.21	64.25	64.93	84	39	45	21	4	1	9	14	3	13	14	20	8	6	0	1.23
Fort Brooke	54.89	67.57	59.25	60.57	77	42	35	13	21	21	14	1	2	1	11	24	4	7	0	3.44
Mount Vernon Arsenal	43.46	60.61	48.91	50.69	77	28	49	14	14	5	10	4	16	1	20	12	16	4	0	3.12
New Orleans	53.53	57.92	57.25	56.23	70	40	30	7	11	18	7	6	9	7	19	19	9	9	0	4.30
Baton Rouge	45.92	62.00	53.07	53.66	75	30	45	21	12	11	4	6	12	14	4	14	14	6	0	2.06
Jefferson Barracks	22.14	34.07	26.29	27.50	57	0	57	2	22	10	14	0	3	2	31	13	15	2	6	1.51
Newport Barracks	23.12	32.28	28.17	27.96	56	0	56	19	5	1	0	20	7	19	13	11	17	0	3	1.70
Fort Snelling	5.33	19.64	11.05	12.01	53	—21	74	7	2	10	5	16	13	15	14	16	12	0	2	.73
Fort Ripley	.42	16.07	7.17	7.55	57	—24	81	8	9	3	3	10	3	10	13	20	8	0	6	.55
Fort Ridgely	7.42	19.25	10.35	12.34	51	—15	66	1	0	16	7	5	6	9	40	18	10	0	5	.53
Fort Leavenworth	20.92	31.25	24.71	25.62	69	— 8	77	14	18	10	2	1	4	9	26	16	12	0	3	2.10
Fort Riley	21.14	32.67	24.07	25.96	73	0	73	15	21	6	6	11	6	9	10	13	15	0	3	.05
Fort Kearny	13.46	24.42	15.17	17.68	49	—11	60	21	10	2	8	5	12	10	16	10	18	0	6	.24
Fort Laramie	20.14	38.46	25.03	27.87	63	—15	78	20	8	1	1	2	2	42	8	23	5	0	4	.02
Fort Randall	6.46	19.21	8.28	11.31	50	—26	76	20	8	7	7	16	7	8	11	14	14	0	8	.45
Fort Chadbourne	34.57	57.04	44.46	45.36	83	14	69	12	3	1	4	29	8	4	23	18	10	4	1	.51
Fort McKavett	38.17	59.32	45.14	47.54	78	12	66	1	15	0	12	9	25	3	17	14	14	3	1	1.05
San Antonio	46.42	68.10	53.14	55.88	85	27	58	35	6	2	18	7	2	0	13	20	8	2	0	10.60
Fort Mason	42.53	59.60	47.25	49.79	80	22	58	22	0	0	7	25	8	14	8	18	10	3	1	1.70
Fort Lancaster	36.82	60.42	46.25	47.82	81	18	63	17	5	3	6	28	3	1	7	17	11	2	0	1.15
Camp Verde	38.66	52.44	41.94	44.34	72	22	50	27	0	14	18	0	18	7	0	17	11	4	0	1.07
Camp Colorado	35.67	58.78	45.80	46.75	85	19	66	4	5	7	6	11	9	8	14	11	17	2	1	.86
Fort Brown	53.35	69.10	57.78	60.07	83	37	46	10	10	12	19	14	0	0	19	18	10	4	0	.85
Ringgold Barracks	49.28	69.07	56.25	58.20	89	31	58	22	17	7	21	3	0	6	8	16	12	3	0	.69
Fort McIntosh	49.60	70.10	56.82	58.84	88	32	56	8	16	5	20	12	4	1	15	16	12	5	0	.63
Fort Clark	49.89	62.96	51.85	54.90	76	34	42	22	24	13	3	0	2	0	2	16	12	4	0	.33
Fort Duncan	49.28	68.89	53.85	57.34	84	40	44	0	0	7	1	1	3	0	24	12	16	1	0	.28
Fort Davis	41.10	57.96	47.70	48.92	76	24	52	12	4	2	6	5	2	3	11	21	7	2	0	1.45
Fort Bliss	31.56	64.92	46.24	48.57	78	22	56	8	4	3	7	2	11	15	4	27	1	2	0	.15
Fort Buchanan	33.30	62.39	49.33	45.36	75	25	50	5	25	15	12	12	10	1	4	24	4	0	1	.51

MONTH OF FEBRUARY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER. RAIN & SNOW.			
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain	Snow	
Fort Thorn	23.82	60.50	39.60	41.30	78	11	67	15	5	3	1	1	10	39	7	23	5	0	0	0
Fort Fillmore	43.85	60.20	35.07	46.40	75	25	50	7	11	35	2	1	3	14	1	17	11	0	0	0
Fort Craig	36.69	57.45	40.28	44.81	69	24	45	9	13	5	7	11	10	15	9	22	6	0	0	0
Fort Stanton	27.50	43.39	34.46	35.11	57	17	40	0	3	8	7	0	12	37	13	13	15	0	2	.12
Albuquerque	28.03	61.78	28.39	39.40	68	20	48	26	7	7	0	6	1	32	5	23	5	1	2	.05
Fort Marcy	24.35	41.39	34.85	33.53	55	10	45	6	20	7	7	6	16	6	16	21	7	0	3	.48
Fort Union	27.46	44.42	30.32	34.08	62	1	61	6	7	11	12	5	11	11	21	24	1	0	2	1.36
Cantonment Burgwin	18.71	45.28	28.82	30.94	62	- 4	66	13	7	15	3	15	5	18	8	16	12	0	4	.18
Fort Massachusetts	10.50	31 85	17.92	20.09	43	—12	55	14	7	7	3	11	22	17	3	22	6	0	3	.90
Fort Defiance	22.54	42.07	31.11	31.91	57	1	56	6	5	6	4	6	13	33	11	16	12	0	3	.54
Fort Yuma	55.71	72.10	64.35	64.05	86	47	39	8	17	13	4	0	13	13	16	24	4	1	0	1.06
San Diego	46.78	64 89	53.68	55.10	83	38	45	0	7	19	17	0	27	14	0	15	13	4	0	.45
Fort Tejon	36.53	54.75	38.86	43.38	70	28	42	2	0	3	12	0	30	25	12	21	7	1	0	.75
Fort Miller	42.85	56.49	49.89	49.74	68	32	36	8	5	22	11	6	3	26	3	15	13	2	0	.17
Fort Crook	28.64	46.14	36.78	37.18	59	12	47	6	5	0	7	0	12	4	31	18	10	3	2	4.38
San Francisco	49.20	57.67	51.64	52.83	69	40	29	8	8	2	9	4	23	33	5	16	12	3	0	1.02
Benicia Barracks	47.32	62.17	51.92	53.80	74	34	40	0	1	8	13	7	24	21	10	21	7	6	0	1.01
Fort Humboldt	45.82	54.17	49.64	49.88	59	32	27	11	8	6	14	8	5	1	14	12	16	5	0	8.45
Fort Jones	30.86	53.21	39.21	41.09	69	17	52	4	12	5	18	1	10	7	27	16	12	9	1	8.78
Fort Umpqua	44.92	52.21	46.46	47.86	59	33	26	0	7	24	1	0	31	4	17	14	14	15	2	10.40
Fort Yamhill	35.64	46.25	39.78	40.55	59	13	46	1	5	6	10	1	21	1	14	10	18	15	4	9.37
Fort Vancouver	35.32	43.92	37.89	39.03	58	14	44	15	7	4	25	0	21	0	12	9	19	14	3	6.90
Fort Dalles	32.28	46.57	36.15	38.33	64	7	57	1	14	5	8	2	12	32	7	13	15	5	0	9.41
Fort Hoskins	38.21	48.31	40.50	42.37	64	14	50	11	5	12	4	0	13	14	14	10	18	13	3	12.29
Fort Steilacoom	32.71	43.03	34.00	36.58	55	10	45	3	11	2	11	9	24	14	18	9	19	4	5	3.17
Fort Walla Walla	28.71	41.60	31.35	33.89	61	2	59	2	7	0	25	0	38	0	0	16	12	7	6	2.62
Fort Bellingham	31.32	41.78	35.85	37.31	52	— 2	54	35	12	3	11	15	4	2	4	14	14	13	3	3.43
Fort Simcoe	27.89	36.27	30.50	31.55	51	1	50	7	7	2	5	9	11	35	8	12	16	1	6	4.54
Camp Scott	21.32	35.35	24.28	26.98	55	— 2	57	2	1	1	1	6	67	5	1	21	7	1	5	.26

MONTH OF MARCH, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION. NO. OF OBSERVATIONS								DAYS		DAYS		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	Variation in the year.
Kennebec Arsenal	22.09	36.32	26.80	28.40	53	—42	65	15	15	5	7	10	14	16	19	21	10	3	4	1.23
Fort Independence	27.93	39.29	32.09	33.10	5[illegible]	5	53	7	7	5	9	10	4	11	37	22	9	5	3	1.43
Fort Adams	[illegible]							5	2	0	10	14	8	4	29	15	16	5	2	1.63
Fort Hamilton	39.22	40.77	33.58	34.86	65	6	59	15	2	6	1	2	10	[illegible]	35	12	19	4	1	.68
Fort Columbus	31.32	41.83	31.75	34.97	62	[illegible]	56	3	19	0	5	6	12	5	41	16	15	3	2	.65
West Point	33.41	45.94	38.00	39.11	63	11	52	25	1	0	1	30	12	4	15	23	8	2	2	.92
Allegheny Arsenal	30.51	45.54	37.00	37.66	73	0	73	12	7	2	10	7	27	9	19	16	15	7	6	.99
Carlisle Barracks	35.00	48.00	36.42	39.81	71	7	64	0	0	5	7	8	18	12	16	25	6	4	2	1.07
Fort Delaware	35.12	45.16	37.61	39.29	66	8	58	10	8	3	2	6	1	11	32	26	5	1	1	.10
Fort McHenry	35.67	48.35	42.96	42.33	70	10	60	7	3	6	4	14	11	34	14	16	15	4	1	1.31
Fort Monroe	40.58	48.52	44.13	44.40	71	13	58	3	16	6	2	3	25	6	25	22	9	2	2	1.00
Fort Moultrie	50.35	59.25	53.96	54.52	78	25	53	9	19	7	3	12	19	8	14	24	7	4	0	1.03
Fort Capron	63.90	70.94	63.45	66.10	90	40	49	4	13	7	22	6	11	4	22	22	9	7	0	3.97
Key West Barracks	69.10	73.94	68.90	71.65	88	54	29	11	25	24	12	7	1	3	5	21	10	6	0	1.75
Fort Myers	60.25	74.22	64.00	66.16	88	40	48	27	14	4	2	5	7	11	8	17	14	4	0	1.80
Fort Dallas	63.35	75.41	68.58	69.11	84	42	42	9	13	23	15	12	5	7	9	26	5	8	0	5.18
Fort Deynaud	58.61	72.87	63.32	64.93	88	38	50	13	19	19	11	9	6	3	13	21	10	7	0	5.04
Fort Brooke	58.45	71.06	54.58	61.36	85	36	49	9	23	28	17	15	4	6	0	27	4	5	0	4.20
Mount Vernon Arsenal	53.32	69.32	58.51	60.35	84	27	57	4	7	4	28	17	13	0	20	16	15	8	0	5.21
New Orleans	61.09	66.61	65.55	64.41	77	42	35	12	6	22	21	4	8	4	16	21	10	6	0	4.71
Baton Rouge	56.77	71.54	63.19	63.84	81	31	50	8	11	12	19	28	8	5	2	13	18	5	0	3.15
Jefferson Barracks	39.96	58.32	48.41	48.89	79	9	70	0	13	6	43	1	2	3	25	19	12	6	0	1.32
Newport Barracks	35.38	48.41	42.96	42.25	71	4	67	13	4	15	3	29	3	19	7	14	17	2	0	.90
Fort Snelling	30.93	44.18	37.03	37.49	68	— 4	72	3	2	7	13	28	15	13	10	19	12	3	2	1.22
Fort Ripley	28.00	41.20	33.45	34.21	61	— 8	69	3	5	6	3	18	4	11	4	21	10	5	6	.61
Fort Ridgely	32.16	44.93	35.93	37.67	64	— 2	66	0	1	10	16	0	6	15	25	19	12	7	4	.60
Fort Leavenworth	42.96	60.00	47.38	50.12	76	12	64	1	14	9	26	6	15	3	19	23	8	3	0	1.00
Fort Riley	43.03	58.68	48.68	50.13	81	16	65	21	13	9	11	22	8	5	4	20	11	6	1	1.92
Fort Kearny	35.00	51.52	40.42	42.31	71	4	67	8	0	4	9	29	16	17	19	20	11	3	0	1.94
Fort Laramie	33.22	52.48	38.61	41.45	74	— 3	77	15	1	6	0	9	3	51	8	28	3	0	1	.02
Fort Randall	34.35	51.87	39.19	41.80	74	6	68	10	6	7	16	16	13	8	17	23	8	3	1	.38
Fort Chadbourne	48.74	70.35	56.61	58.57	87	20	67	8	2	2	19	33	6	10	13	20	11	5	0	.88
Fort McKavett	59.70	69.67	56.93	59.12	80	25	55	1	12	2	36	3	17	0	22	8	23	6	0	3.60
San Antonio	58.00	76.81	63.45	66.08	85	33	52	23	2	4	48	8	0	1	7	17	14	6	0	4.50
Fort Mason	55.09	71.45	59.96	62.16	85	32	53	4	2	6	5	50	8	3	15	17	14	5	0	1.95
Fort Lancaster	51.35	72.48	59.70	61.17	86	26	60	7	2	3	9	42	1	18	4	19	12	3	0	.72
Camp Verde	48.67	64.38	51.90	54.98	75	38	37	3	0	0	0	27	33	12	18	19	12	5	0	3.56
Camp Colorado	51.24	71.96	58.17	60.45	89	26	63	2	14	0	22	10	1	15	10	10	21	9	0	1.83
Fort Brown	64.77	77.61	66.83	69.73	99	40	59	6	12	7	34	24	1	0	12	16	15	1	0	.07
Ringgold Barracks	62.09	82.51	68.45	71.01	98	36	62	11	5	12	53	0	0	0	12	20	11	0	0	0
Fort McIntosh	62.03	85.42	69.16	72.20	95	35	60	5	7	7	51	8	2	0	13	19	12	3	1	.13
Fort Clark	57.03	75.03	63.66	65.24	90	35	55	6	35	22	2	0	3	3	10	16	15	7	0	2.37
Fort Duncan	61.35	80.35	66.41	69.37	99	40	59	0	2	3	23	0	0	0	14	14	17	4	0	1.79
Fort Davis	47.64	69.06	57.03	57.91	78	28	50	16	9	5	1	1	1	0	8	25	5	1	0	.02
Fort Buchanan	31.20	67.30	43.55	47.35	91	13	78	8	24	13	8	10	24	3	3	30	1	1	2	.29
Fort Bliss	44.96	70.84	56.61	57.93	81	30	51	5	5	9	0	2	19	12	11	30	1	1	0	.06

MONTH OF MARCH, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.	DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W	NW	Fair.	Cl'dy.	Rain	Snow	
Fort Thorn	30.90	70.06	46.61	49.19	85	18	67	8	2	0	0	3	19	33	6	27	4	2	0	.01
Fort Fillmore	42.83	66.35	50.93	53.37	80	30	50	0	5	30	14	7	4	96	7	22	9	1	0	.22
Fort Craig	41.93	61.06	39.67	47.55	74	31	43	14	6	1	7	95	13	13	12	25	3	1	1	1.50
Fort Stanton	31.96	48.67	40.00	40.21	61	10	51	2	3	9	2	0	6	51	19	16	15	0	3	1.17
Albuquerque	35.71	64 77	39.96	46.82	76	21	55	17	3	12	1	20	3	34	3	24	7	1	2	.68
Fort Marcy	30.26	47.30	42.61	40.05	59	14	45	7	14	3	16	7	18	6	22	25	6	2	4	.69
Fort Union	31.45	52.25	36.51	40.07	70	8	62	8	11	11	12	14	8	9	20	27	4	0	3	1.15
Cantonment Burgwin	25.25	52.70	35.38	37.78	67	12	55	12	3	25	2	10	7	23	11	12	19	2	6	.53
Fort Massachusetts	21.54	41.16	28.25	30.32	60	4	56	4	7	1	14	16	26	14	11	24	7	0	4	.08
Fort Defiance	30.84	48.87	37.16	38.95	66	14	52	8	4	4	4	10	17	30	16	17	14	1	5	.59
Fort Yuma	55.19	74.90	64.93	65.00	89	43	46	3	5	10	6	8	11	35	15	24	7	0	0	0
San Diego	47.68	63.58	52.68	54.64	72	37	35	3	9	11	10	0	27	26	7	15	16	8	0	1.60
Fort Tejon	39.50	56.71	39.61	45.25	70	28	42	8	0	0	0	1	49	24	11	20	11	8	3	7.39
Fort Miller	48.35	63.22	52.09	54.51	78	38	40	12	2	22	5	7	11	32	2	10	21	3	0	1.00
Fort Crook	31.77	51.35	40 29	41.13	63	20	43	2	3	0	11	0	12	1	42	14	17	2	3	2.57
San Francisco	49 41	56.35	50.58	52.11	66	40	26	5	1	0	2	11	24	41	9	16	15	8	0	3.46
Benicia Barracks	47.48	61.77	53.51	54.25	70	33	37	0	1	20	5	1	6	56	4	22	9	11	1	2.49
Fort Humboldt	44.90	53.50	48.71	49.13	60	35	25	16	10	2	13	6	13	2	9	12	19	16	1	5.21
Fort Jones	34.51	56.59	42.49	44.55	74	23	51	2	12	6	6	1	20	25	21	14	17	2	1	3.69
Fort Umpqua	45.41	54.38	47.03	48.94	65	37	28	0	3	22	3	0	43	0	22	11	20	18	1	7.80
Fort Yamhill	38.35	50.48	41.83	43.55	64	30	34	0	0	3	4	0	45	1	12	11	20	25	2	7.51
Fort Vancouver	39.70	52.19	45.32	45.74	63	31	32	2	6	3	34	4	23	5	16	10	21	17	0	4.20
Fort Dalles	38.76	55.16	45.58	46.50	66	28	38	0	22	7	1	3	20	29	10	18	13	10	0	2.91
Fort Hoskins	39.68	55.48	43.42	46.19	69	28	41	4	1	5	5	16	20	19	12	12	19	19	1	1.89
Block House, (Siletz R.)*	42.34	50.92	43.00	45.42	67	32	35	0	1	12	8	6	8	28	15	9	17	14	0	9.55
Fort Steilacoom	36.54	56.35	39.61	44.16	65	30	35	0	10	17	16	26	14	6	4	13	18	14	0	6.70
Fort Walla-Walla	34.87	54.41	39.03	42.77	68	29	39	0	3	0	30	0	45	4	11	19	12	13	2	2.76
Fort Bellingham	41.93	49.40	44.06	45.13	59	32	27	4	11	2	27	40	7	1	1	13	18	19	0	2.74
Fort Simcoe	37.41	49.93	39.92	42.42	61	24	37	8	3	2	1	15	15	38	10	18	13	9	2	1.06
Camp Scott	29.58	43.55	30.44	34.52	65	13	52	4	5	1	1	17	41	14	4	16	15	1	5	.25

* Observations taken for twenty six days only.

MONTH OF APRIL, 1858.

STATIONS.	THERMOMETER.							WINDS								WEATHER		RAIN & SNOW	
	MEAN TEMPERATURE			RANGE.				DIRECTION. NO. OF OBSERVATIONS.								DAYS		DAYS	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain or Snow.	Amount in inches.
Kennebec Arsenal	36.26	48.33	37.63	40.74	66	25	41	12	20	19	7	7	9	8	16	06	14	7	3	5.33
Fort Independence	39.20	51.12	43.90	45.09	68	34	34	12	19	12	12	3	3	6	23	15	14	7	2	4.43
Fort Adams	42.83	49.86	43.36	45.36	60	33	27	8	9	4	18	11	10	2	28	9	21	9	2	4.21
Fort Hamilton	43.40	54.23	45.33	47.65	78	31	47	7	16	15	7	4	5	5	31	9	21	7	1	4.50
Fort Columbus	43.26	55.70	44.80	47.92	77	26	51	3	19	2	13	9	3	7	34	13	17	7	0	.....
West Point	45.50	56.90	50.16	50.85	75	36	39	33	8	4	2	27	1	8	7	17	13	9	1	4.48
Allegheny Arsenal	45.00	59.60	50.36	51.65	79	28	51	8	20	6	7	6	17	18	8	10	20	12	1	4.29
Carlisle Barracks	44.66	57.16	47.13	50.41	75	32	43	8	6	4	18	6	4	32	12	21	9	6	0	3.70
Fort Delaware	39.08	57.38	50.13	52.19	80	35	45	0	12	15	6	9	6	9	33	19	11	10	1	3.00
Fort McHenry	48.26	60.83	53.40	54.16	83	34	49	11	14	11	4	7	4	22	13	11	19	8	0	4.33
Fort Monroe	54.10	60.20	56.43	56.91	77	43	34	2	29	11	8	3	21	5	8	15	15	6	1	2.99
Fort Moultrie	62.37	70.30	64.20	65.74	80	45	35	8	3	3	6	29	21	9	8	21	9	4	0	2.67
Fort Capron	69.27	77.40	70.00	72.22	90	57	33	9	4	3	31	8	11	3	14	25	5	4	0	.40
Key West Barracks	74.83	79.86	74.30	76.33	85	67	18	0	9	43	17	3	0	12	6	21	9	8	0	.28
Fort Myers	69.80	82.70	70.25	74.22	94	58	36	13	16	8	5	9	7	21	2	22	8	0	0	0
Fort Dallas	71.10	79.63	73.90	74.87	85	60	25	4	25	19	23	4	5	1	9	29	1	5	0	.85
Fort Deynaud	65.06	80.56	70.43	72.01	89	56	33	12	16	13	6	10	7	17	9	25	5	6	0	.78
Fort Brooke	65.33	77.83	67.96	70.31	86	56	30	2	8	19	17	17	19	3	5	28	2	2	0	.48
Mount Vernon Arsenal	59.30	75.16	64.56	66.34	86	42	44	10	8	1	19	26	8	3	16	19	11	6	0	2.02
New Orleans	67.26	74.33	72.93	71.50	82	56	26	11	0	14	22	9	16	7	11	23	7	3	0	2.26
Baton Rouge	61.26	75.73	67.20	68.06	84	50	34	14	3	3	6	31	25	2	2	19	11	5	0	1.67
Jefferson Barracks	59.30	66.93	55.80	57.67	85	32	53	0	18	2	38	0	2	1	29	16	14	10	0	2.65
Newport Barracks	54.60	60.83	55.40	55.40	82	34	48	6	6	10	9	28	9	20	2	9	21	7	0	5.65
Fort Snelling	37.86	48.80	42.53	43.06	85	21	64	8	7	12	17	12	8	7	19	12	18	6	1	3.79
Fort Ripley	36.16	47.76	40.03	41.31	74	23	51	16	21	8	3	15	5	10	6	18	12	1	3	2.15
Fort Ridgely	37.50	47.56	40.10	41.72	82	19	63	9	9	17	12	3	2	16	22	16	14	6	3	3.66
Fort Leavenworth	48.66	62.13	49.02	53.37	83	35	48	3	9	7	10	4	22	9	26	21	9	12	1	2.62
Fort Riley	49.00	62.07	52.20	54.42	85	33	52	5	21	12	8	17	0	15	12	17	13	11	0	3.75
Fort Kearny	41.00	54.16	44.93	46.69	84	28	56	10	14	11	11	3	11	3	25	6	24	4	3	4.04
Fort Laramie	42.03	61.90	44.46	49.46	89	28	61	14	6	12	6	5	1	45	7	21	9	1	2	.09
Fort Randall	42.90	53.60	43.36	46.62	93	30	63	22	15	19	12	5	6	6	5	12	18	6	0	2.17
Fort Chadbourne	51.63	78.03	62.70	65.12	91	39	52	11	0	3	14	28	9	12	13	21	9	6	0	.35
Fort McKavett	67.10	76.06	62.26	65.14	87	43	44	2	10	1	33	7	12	2	23	11	19	6	0	1.78
San Antonio	62.86	85.63	70.00	72.83	98	50	48	12	6	5	37	7	8	0	15	21	9	3	0	.50
Fort Mason	58.90	76.26	66.23	67.13	86	54	32	2	2	3	3	47	7	3	23	21	9	2	0	1.16
Fort Lancaster	55.50	82.30	67.83	68.54	97	41	56	6	5	2	9	34	4	15	6	21	9	1	0	1.80
Camp Verde	55.73	72.33	55.06	61.04	88	43	45	0	2	3	20	20	14	17	5	20	10	4	0	2.90
Camp Colorado	58.31	79.60	62.23	66.71	92	42	50	3	30	6	10	2	6	13	8	14	16	6	0	2.05
Fort Brown	72.10	82.96	71.30	75.45	97	62	35	7	8	10	46	17	0	0	2	18	12	0	0	0
Ringgold Barracks	69.46	91.00	73.69	78.02	102	55	47	15	7	13	48	0	0	1	6	19	11	0	0	0
Fort McIntosh	68.25	86.51	76.32	77.03	96	54	42	1	14	4	57	0	3	0	11	21	9	0	0	0
Fort Clark	63.22	84.70	71.16	73.19	97	52	45	12	27	31	2	0	1	5	3	21	9	3	0	1.62
Fort Duncan	67.10	88.90	74.46	76.82	100	54	46	0	14	4	21	0	1	0	5	18	12	0	0	0
Fort Davis	54.83	76.60	62.80	64.74	92	39	53	13	6	3	4	10	17	6	5	24	6	0	0	0
Fort Bliss	54.10	76.60	65.96	65.55	90	40	50	1	2	8	3	13	24	24	15	27	3	0	0	0
Fort Buchanan	67.40	79.83	51.76	59.33	91	30	61	5	11	20	3	16	16	18	1	21	6	1	2	1.46

MONTH OF APRIL, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow	Amount in inches.
Fort Thorn..	45.80	79.46	53.43	59.56	93	32	61	2	2	3	1	1	5	70	6	20	10	1	0	.10
Fort Fillmore	59.30	80.08	60.90	66.79	96	45	51	0	8	8	20	28	9	14	3	23	7	0	0	0
Fort Craig	53.36	74.16	54.90	60.80	84	36	48	2	7	11	12	29	21	6	2	24	6	1	0	.11
Fort Stanton	45.43	57.53	48.30	50.42	69	31	38	0	1	15	3	0	2	43	25	11	19	2	3	.31
Albuquerque	45.00	75.96	64.07	53.88	96	34	62	5	3	3	0	27	1	41	10	25	5	2	2	.16
Fort Marcy	40.00	51.66	49.63	48.09	69	23	46	6	6	2	17	11	26	5	17	22	8	7	6	1.05
Fort Union	39.60	61.00	44.20	48.26	78	16	62	7	7	3	14	14	19	9	17	26	1	1	2	.40
Cantonment Burgwin	33.59	59.03	43.13	45.22	75	12	63	13	0	26	1	22	7	21	0	11	19	3	7	2.24
Fort Massachusetts	35.33	51.76	36.40	41.16	66	15	51	5	8	1	3	8	30	22	13	17	13	0	5	2.11
Fort Defiance	41.13	56.77	46.93	48.37	74	28	46	9	4	1	3	8	23	29	13	15	15	1	9	1.64
Fort Yuma	66.16	84.96	71.33	74.15	106	52	54	2	3	17	6	14	15	19	11	27	3	0	0	0
San Diego	53.07	68.46	55.56	59.03	80	42	36	1	5	9	18	0	33	18	6	16	14	4	0	.27
Fort Tejon	47.76	63.83	50.50	54.03	84	32	52	1	0	0	0	21	31	16	21	18	12	9	1	5.37
Fort Miller	56.43	72.26	61.06	63.26	97	42	55	10	4	15	4	8	5	41	3	12	18	2	0	.81
Fort Crook	37.31	63.10	46.62	49.01	82	26	56	1	3	0	5	2	6	4	44	18	12	3	3	1.28
San Francisco	50.80	58.09	50.33	53.06	74	45	29	3	0	0	2	1	38	41	5	21	9	5	0	1.12
Benicia Barracks	51.83	70.40	61.16	61.13	88	52	36	0	0	5	10	0	6	62	7	24	6	6	0	.81
Fort Humboldt	47.26	54.63	50.23	50.74	62	37	25	18	8	0	4	2	6	2	24	14	16	11	0	2.67
Fort Jones	41.90	71.10	51.90	54.96	91	30	61	1	11	9	23	11	19	6	10	20	10	3	0	1.15
Fort Umpqua	49.03	57.13	48.46	51.54	70	41	29	0	7	13	1	0	34	9	26	17	13	11	0	4.62
Fort Yamhill	41.80	56.70	45.83	48.11	80	34	46	1	4	5	1	0	29	17	12	16	14	19	0	2.66
Fort Vancouver	44.76	55.70	51.96	50.80	80	35	45	2	6	4	11	5	32	13	17	10	20	11	0	1.98
Fort Dalles	46.86	63.93	52.10	54.29	84	36	48	0	19	1	0	3	8	35	21	22	8	5	0	1.36
Fort Hoskins	48.86	61.86	47.90	52.87	85	37	48	8	6	3	2	3	14	22	12	15	15	13	0	2.81
Block House	45.36	54.60	46.60	48.85	73	39	34	0	2	8	9	3	24	33	11	14	16	13	0	7.23
Fort Steilacoom	43.03	57.46	45.20	48.56	75	36	39	2	0	2	6	9	31	31	9	10	20	14	0	3.21
Fort Walla-Walla	42.63	65.93	43.73	50.76	84	30	54	0	6	0	21	0	51	0	12	21	9	10	0	2.02
Fort Bellingham	44.46	53.56	46.36	48.12	63	38	25	6	11	0	20	38	5	9	1	12	18	19	0	2.69
Fort Simcoe	47.43	59.83	49.38	52.21	77	36	41	3	4	7	5	9	14	38	9	20	10	5	1	.49
Camp Scott	38.70	52.06	35.96	42.24	70	25	45	3	7	6	3	0	29	38	4	21	9	1	6	.52

[1] The quantity of rain not measured on account of a leak in the rain gauge.

MONTH OF MAY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	Amount in inches.
Kennebec Arsenal	48.45	60.77	47.48	52.23	76	38	38	25	9	11	2	25	11	4	3	20	11	5	0	3.10
Fort Independence	50.22	60.12	54.77	54.03	73	42	31	13	16	25	17	2	8	4	6	16	15	9	0	2.95
Fort Adams	50.22	56.61	50.22	52.35	63	45	18	9	6	15	22	12	7	5	15	8	23	11	0	3.46
Fort Hamilton	52.22	58.58	52.25	54.35	74	45	29	9	14	21	12	8	9	2	18	6	25	13	0	4.58
Fort Columbus	52.51	61.38	54.41	56.10	73	40	33	0	22	29	11	3	13	3	9	15	16	13	0	5.54
West Point	55.30	64.54	58.32	59.39	72	47	25	35	10	8	10	11	7	3	6	18	13	11	0	6.17
Alleghany Arsenal	55.54	65.48	57.87	59.63	81	46	35	14	14	11	7	11	15	15	6	9	22	23	0	6.63
Carlisle Barracks	55.30	65.22	56.77	59.09	77	45	32	0	3	7	22	14	11	34	2	19	12	18	0	8.55
Fort Delaware	57.80	62.30	55.35	58.48	78	49	29	2	23	10	19	2	2	6	29	14	17	4	0	4.20
Fort McHenry	57.25	65.48	59.09	60.60	75	49	26	10	15	18	8	10	10	18	4	8	23	14	0	9.08
Fort Monroe	61.10	67.40	63.30	63.93	80	54	26	3	32	4	11	5	21	19	4	14	17	5	0	3.30
Fort Moultrie	70.74	76.93	72.00	72.22	87	64	23	3	13	8	9	30	12	16	0	26	5	6	0	4.11
Fort Capron	76.71	81.10	75.42	77.74	89	67	22	2	13	22	24	8	7	10	6	25	6	12	0	2.51
Key West Barracks	78.03	82.32	77.22	79.19	86	71	15	10	33	23	17	4	0	2	5	16	15	12	0	3.47
Fort Myers	74.09	87.06	75.80	78.98	94	68	26	25	18	6	0	4	3	10	4	17	14	9	0	4.51
Fort Dallas	42.96	56.16	40.38	46.50	70	29	41	2	2	7	5	11	14	41	11	22	9	7	2	1.31
Fort Brooke	70.96	83.67	74.41	76.35	89	62	27	1	11	21	32	21	7	0	0	27	4	7	0	2.54
Mount Vernon Arsenal	67.16	83.00	71.03	73.73	90	60	30	7	6	3	30	22	9	1	15	22	9	4	0	1.42
New Orleans	74.32	78.84	78.00	77.05	84	65	19	0	4	12	34	19	5	8	11	25	6	7	0	3.45
Baton Rouge	70.25	81.32	74.41	75.32	87	60	27	5	10	17	13	21	11	13	3	17	14	8	0	6.60
Jefferson Barracks	85.51	72.32	59.61	63.48	89	52	37	1	1	2	57	0	13	5	14	17	14	12	0	6.62
Newport Barracks	58.03	67.96	62.74	62.91	83	45	38	15	11	1	6	29	4	23	4	6	25	12	0	16.65
Fort Ripley	49.12	61.00	50.90	53.67	82	37	45	10	10	12	1	15	1	8	9	22	9	8	0	1.90
Fort Ridgely	48.06	60.41	50.61	53.02	80	37	43	8	10	31	13	2	6	13	10	16	15	11	1	2.93
Fort Leavenworth	57.29	69.10	56.36	60.91	89	38	51	1	4	7	15	12	18	18	18	18	13	11	0	5.00
Fort Riley	57.35	69.19	59.19	61.25	88	40	48	23	10	7	7	18	5	11	12	16	15	13	0	3.29
Fort Kearny	49.48	62.87	52.61	54.98	87	37	50	12	19	7	7	0	14	4	19	8	23	8	0	3.55
Fort Laramie	46.00	60.93	45.84	50.92	82	23	59	8	1	15	3	7	0	51	6	23	8	3	1	1.12
Fort Randall	50.29	64.74	51.29	55.44	86	40	46	19	6	2	12	7	8	10	10	16	15	9	1	3.22
Fort Chadbourne	61.81	81.71	69.97	71.16	106	46	60	11	0	4	29	28	3	5	10	17	14	10	0	1.69
Fort McKavett	60.87	82.15	70.19	71.13	96	47	49	2	14	4	56	4	8	1	7	11	20	3	0	.85
San Antonio	71.51	90.61	73.87	78.67	102	53	49	13	14	9	34	3	0	0	0	21	10	5	0	3.12
Camp Hudson	70.10	86.61	74.90	77.20	102	57	45	6	2	15	37	7	0	3	5	14	17	8	0	1.80
Fort Mason	67.35	82.74	72.74	74.27	94	51	43	5	3	2	5	56	17	5	0	17	14	1	0	4.30
Fort Lancaster	66.87	87.29	73.70	75.92	100	46	54	17	1	0	4	61	2	2	0	16	15	3	0	4.25
Camp Verde	60.16	83.77	68.06	70.66	91	48	43	0	0	13	29	32	6	8	5	17	14	5	0	2.41
Camp Colorado	65.25	82.82	69.67	72.58	98	49	49	2	32	17	7	3	3	7	12	13	18	6	0	2.50
Fort Brown	77.19	86.67	75.61	79.82	92	65	27	2	5	12	58	13	0	0	3	16	15	3	0	1.00
Ringgold Barracks	79.51	95.61	79.06	84.72	107	68	39	7	0	6	77	0	0	0	3	22	9	3	0	.69
Fort McIntosh	78.50	89.12	81.66	83.06	100	66	34	2	4	7	66	8	1	0	5	19	12	1	0	2.10
Fort Clark	72.40	88.16	77.40	79.31	101	59	42	8	48	21	1	0	0	0	1	15	16	8	0	1.47
Fort Duncan	73.90	92.51	80.71	82.37	106	64	42	0	5	0	58	0	1	0	1	11	20	5	0	2.68
Fort Davis	63.06	85.19	70.62	72.95	98	44	54	3	13	1	10	2	12	0	7	23	8	6	0	.50
Fort Bliss	64.30	85.06	74.84	74.73	94	50	44	2	2	5	2	18	27	29	8	29	2	0	0	0
Fort Buchanan	57.68	85.60	56.26	66.51	93	42	51	13	5	11	4	27	27	4	2	30	1	0	0	0
Fort Thorn	52.03	87.09	60.25	66.45	100	39	61	11	9	3	0	7	25	52	5	25	6	0	0	0

MONTH OF MAY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain.	Snow.	
Fort Fillmore	61.29	87.77	63.06	70.70	98	50	18	0	1	9	28	17	19	17	1	6	25	0	0	0
Fort Craig	62.00	76.00	67.42	68.47	87	51	36	5	7	7	24	21	12	16	5	28	3	0	0	0
Fort Stanton	50.25	62.54	54.96	55.98	75	32	43	0	1	26	4	4	6	33	12	15	16	3	1	.79
Albuquerque	52.22	81.29	46.29	60.93	95	35	60	6	0	1	2	19	3	56	3	30	1	2	0	.....
Fort Marcy	50.84	64.30	57.68	57.60	72	32	40	1	14	2	9	9	45	4	19	25	6	2	3	.38
Fort Union	50.64	69.16	52.61	57.47	84	27	57	6	8	7	29	15	13	4	29	25	6	2	0	1.20
Cantonment Burgwin	41.54	67.51	49.58	53.88	79	28	51	9	1	25	3	27	7	14	6	11	20	0	4	.74
Fort Massachusetts	41.09	60.32	44.19	49.52	75	20	55	9	6	4	5	13	32	20	4	21	10	0	2	1.09
Fort Defiance	50.80	66.23	53.26	56.75	77	33	44	6	3	1	4	21	24	28	6	22	9	0	0	0
Fort Yuma	74.32	93.74	80.60	82.88	102	65	37	8	2	11	6	13	16	32	5	25	6	0	0	0
San Diego	60.03	72.61	61.32	64.65	80	53	27	0	1	18	21	0	35	16	2	15	16	0	0	0
Fort Tejon	53.06	71.42	55.16	59.88	81	42	39	12	0	0	0	1	30	31	19	27	1	3	0	.09
Fort Miller	64.80	82.55	65.81	71.05	93	54	39	7	3	23	7	12	3	33	5	17	14	0	0	0
Fort Crook	46.25	69.58	49.28	55.08	80	39	41	2	5	0	14	0	8	0	15	20	11	6	0	.13
San Francisco	53.22	60.13	51.77	55.03	68	48	20	0	1	0	6	1	57	28	0	24	11	5	0	.16
Benicia Barracks	59.06	76.22	64.12	66.46	86	54	32	0	0	2	2	0	0	89	0	26	5	3	0	.12
Fort Humboldt	51.48	59.16	53.32	54.65	69	44	25	27	2	4	0	1	13	1	16	17	14	8	0	1.30
Fort Jones	48.81	73.77	56.45	59.67	94	43	51	14	11	9	10	10	14	10	15	19	12	3	0	1.55
Fort Umpqua	53.93	61.61	52.19	55.91	81	48	33	0	4	8	0	0	38	1	39	16	15	9	0	3.75
Fort Yamhill	47.71	60.74	50.19	52.87	80	37	43	0	8	0	1	1	24	20	16	17	14	16	0	3.87
Fort Vancouver	52.61	62.87	55.32	56.93	80	47	33	2	11	2	15	13	16	9	25	10	21	13	0	2.39
Fort Dalles	54.71	69.03	56.90	60.21	86	46	40	0	15	9	0	1	13	29	23	20	11	9	0	1.70
Fort Hoskins	52.71	66.80	49.97	56.49	85	39	46	4	5	1	3	6	18	21	15	17	14	15	0	6.92
Block House	49.97	59.16	52.13	53.90	73	40	33	4	0	3	5	3	32	43	3	12	19	10	0	5.46
Fort Steilacoom	49.83	63.35	50.81	54.66	81	44	37	0	1	8	6	3	24	46	5	16	15	7	0	3.85
Fort Walla-Walla	56.70	73.29	55.90	62.03	88	46	42	0	4	0	25	0	58	0	6	18	13	7	0	1.52
Fort Bellingham	49.90	60.35	53.00	54.41	72	43	29	0	1	0	26	48	9	7	2	12	19	9	0	1.21
Fort Simcoe	56.88	67.42	56.31	60.21	81	45	36	2	5	5	5	24	16	24	9	21	10	4	0	.55
Fort Cascades	52.48	64.96	54.61	57.35	84	44	40	0	1	0	11	9	51	13	8	11	20	12	1	4.65
Camp Scott	42.96	56.16	40.38	46.50	70	29	41	2	2	7	5	11	14	41	11	22	9	7	3	1.31

MONTH OF JUNE, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cl'dy.	Rain	Snow.	Amount in inches.
Kennebec Arsenal	63.63	76.43	61.36	67.14	93	50	43	16	3	7	0	41	12	7	4	15	15	6	0	2.35
Fort Independence	63.90	74.80	65.06	67.92	90	52	38	8	15	19	11	9	18	8	1	16	14	6	0	5.60
Fort Adams	63.10	71.10	63.26	64.82	83	50	33	7	7	1	16	34	14	4	7	9	21	12	0	6.86
Fort Hamilton	67.39	77.16	66.30	70.25	93	53	40	4	7	3	5	11	20	4	36	14	16	5	0	3.30
Fort Columbus	68.33	79.33	69.40	72.25	93	52	41	0	6	1	12	7	25	20	0	24	6	7	0	5.95
West Point	70.16	79.13	71.43	73.57	91	55	36	7	6	3	5	69	3	0	0	25	5	5	0	4.30
Allegheny Arsenal	66.86	80.73	70.46	72.69	91	53	38	13	10	8	7	12	17	13	10	18	12	7	0	4.30
Carlisle Barracks	68.93	81.96	71.83	74.42	92	56	36	2	3	0	10	21	12	40	2	25	5	9	0	2.80
Fort Delaware	74.63	82.55	72.50	76.69	96	59	37	25	5	5	8	16	5	12	13	25	5	2	1	2.05
Fort McHenry	72.66	83.13	74.10	76.63	94	59	35	11	7	14	12	11	16	12	7	19	11	6	0	4.90
Fort Monroe	72.90	80.43	76.36	76.54	92	64	28	1	18	9	13	6	39	3	0	20	10	6	0	3.45
Key West Barracks	78.83	82.30	78.70	79.91	95	71	14	1	4	24	50	0	0	3	1	19	11	8	0	7.27
Fort Moultrie	78.03	81.70	78.13	79.28	88	69	19	1	7	8	20	31	8	2	2	24	6	5	0	1.09
Fort Myers	79.45	90.54	78.18	81.39	93	74	19	13	6	1	0	0	0	1	1	15	15	2	1	1.10
Fort Brooke	75.60	85.76	73.70	78.35	90	69	21	0	7	12	23	21	20	1	0	25	4	14	0	6.03
Barrancas Barracks	78.05	85.41	80.25	81.23	91	74	17	0	3	1	18	0	7	7	0	6	6	3	0	.75
Mount Vernon Arsenal	74.66	85.46	74.96	78.36	96	65	31	11	9	1	25	18	17	4	3	15	15	10	0	4.84
New Orleans	79.43	82.26	81.53	81.07	86	72	14	13	8	7	38	13	5	0	5	21	9	14	0	4.89
Baton Rouge	74.73	84.06	77.36	78.71	90	65	25	1	4	33	26	13	8	0	2	13	17	17	0	6.57
Jefferson Barracks	74.76	83.30	76.96	75.34	95	52	43	0	4	5	69	3	7	2	0	18	12	14	0	6.39
Newport Barracks	69.80	79.66	74.76	74.74	89	56	33	13	2	4	1	55	9	5	1	13	17	10	0	6.95
Fort Ripley	68.59	80.00	66.86	71.78	99	52	47	9	5	3	5	27	2	9	1	21	9	9	0	1.80
Fort Ridgely	65.70	78.00	66.56	70.08	93	49	44	8	4	16	21	19	9	8	2	23	7	8	0	1.16
Fort Leavenworth	69.97	82.50	76.23	76.23	95	56	39	0	1	3	24	22	15	12	8	21	9	10	0	8.77
Fort Riley	71.13	80.30	71.57	74.33	92	55	37	6	2	4	13	40	6	12	7	20	10	9	0	5.30
Fort Kearny	65.90	80.46	67.90	71.42	92	48	44	10	10	1	18	11	23	4	10	10	20	8	0	3.02
Fort Laramie	62.60	82.06	65.70	70.12	89	47	42	2	1	4	1	12	0	59	11	29	1	2	0	.80
Fort Randall	68.20	87.43	66.73	74.12	104	52	52	6	3	13	16	23	15	4	10	21	9	9	0	1.36
Fort Chadbourne	69.57	86.73	76.23	77.51	96	55	41	10	0	3	42	33	0	1	1	9	21	10	0	.50
Fort McKavett	69.93	85.26	73.76	76.36	92	56	36	1	9	2	67	3	2	1	2	6	24	4	0	1.26
San Antonio	76.63	90.90	77.90	81.84	96	68	28	8	15	11	50	6	0	0	0	19	11	0	0	0
Fort Mason	72.30	86.23	75.90	78.14	92	59	33	1	0	2	11	46	25	0	5	13	17	1	0	.07
Fort Lancaster	70.40	86.85	74.03	77.09	95	53	42	9	0	0	0	78	0	0	0	10	20	9	0	5.97
Camp Verde	70.23	87.43	73.36	77.00	93	57	36	0	0	5	21	45	16	0	0	19	11	7	0	1.55
Camp Colorado	73.31	88.06	75.55	78.97	95	58	38	2	28	32	7	1	4	2	1	8	22	2	0	1.33
Fort Brown	80.83	88.40	79.20	82.81	93	70	24	0	1	11	67	4	0	1	0	17	13	4	0	1.15
Ringgold Barracks	82.16	93.33	81.76	85.75	103	71	32	0	2	12	68	2	0	6	0	18	12	5	0	7.25
Fort McIntosh	77.40	89.30	83.60	83.43	97	68	29	2	4	25	38	16	0	3	2	20	10	9	0	1.54
Fort Clark	74.37	86.90	78.83	80.02	94	64	28	5	10	26	0	0	0	0	0	11	19	12	0	4.99
Fort Duncan	76.03	89.56	79.76	81.80	98	63	35	0	0	0	45	0	0	0	2	6	24	11	0	4.14
Fort Davis	66.70	85.60	71.70	74.66	96	56	40	1	9	9	11	0	19	1	5	17	13	8	0	2.21
Fort Bliss	75.50	90.10	81.91	82.28	97	65	32	3	1	5	10	15	12	29	13	27	3	1	0	.19
Fort Buchanan	66.56	91.43	66.99	74.66	103	57	46	1	11	3	9	35	22	6	0	25	5	4	0	.48
Fort Thorn	63.07	92.20	70.03	75.11	103	56	47	17	18	11	2	2	9	23	4	27	3	3	0	.22
Fort Fillmore	74.73	93.63	73.96	80.77	104	60	44	0	0	1	24	28	28	10	0	22	8	3	0	.78
Fort Craig	71.30	85.53	76.70	77.84	93	58	35	9	10	3	25	30	11	3	5	27	3	6	0	.91

MONTH OF JUNE, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount for Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cldy	Rain	Snow	
Fort Stanton	56.40	69.43	61.46	62.43	80	45	35	0	0	37	10	2	7	27	6	11	19	10	0	2.00
Albuquerque	62.73	89.36	51.40	67.83	93	38	55	2	0	1	1	26	7	49	4	26	4	4	0	.35
Fort Marcy	60.23	73.83	65.20	66.42	85	18	37	4	4	3	21	6	39	6	7	23	7	12	0	.73
Fort Union	62.26	79.03	60.13	67.14	90	40	50	4	5	9	17	18	14	7	16	21	6	8	1	3.20
Cantonment Burgwin	56.06	71.30	60.00	62.45	82	44	38	8	1	16	0	37	3	19	6	14	16	11	0	.89
Fort Massachusetts	55.26	74.86	54.66	61.59	87	40	47	0	9	12	8	15	25	17	4	19	11	3	0	.58
Fort Defiance	59.43	76.43	64.80	66.88	85	48	37	12	2	4	5	12	19	29	7	17	13	6	0	.27
Fort Yuma	83.40	98.60	85.83	89.28	108	71	37	4	8	11	12	16	11	19	6	25	5	0	0	0
San Diego	64.53	74.86	67.63	69.00	90	60	30	0	0	22	19	0	26	13	0	15	15	2	0	.15
Fort Tejon	63.93	79.16	68.50	70.19	94	51	43	0	0	0	0	2	21	37	30	25	5	2	0	1.20
Fort Miller †	72.53	92.53	75.52	80.19	103	62	41	4	2	11	19	7	1	20	2	10	9	0	0	0
Fort Crook	79.60	77.70	61.80	65.46	97	45	52	0	2	0	13	0	6	0	18	24	6	4	0	.34
San Francisco	54.50	62.53	53.50	56.84	67	47	20	0	0	0	0	0	72	18	0	16	14	0	0	0
Benicia Barracks	61.23	76.39	65.83	67.78	89	54	35	0	0	2	0	0	1	87	0	27	3	1	0	.01
Fort Humboldt	54.96	62.06	56.13	57.71	73	48	25	22	7	3	4	0	9	2	12	14	16	7	0	.47
Fort Jones	64.17	88.11	72.72	74.00	99	53	46	....	....	....	....	....	....	....	....	....	....	....	....	.60
Fort Umpqua	57.70	64.40	54.86	58.98	68	51	17	0	0	11	0	0	27	4	47	20	10	6	0	.85
Fort Yamhill	53.90	70.10	55.76	56.58	91	46	45	1	0	0	0	1	43	8	17	18	12	7	0	2.54
Fort Vancouver	60.96	72.16	63.00	65.37	90	48	42	4	12	3	15	4	12	14	26	14	16	6	0	1.82
Fort Dalles	60.63	78.33	64.80	67.92	95	51	44	3	17	10	2	3	9	28	11	21	6	8	0	1.03
Fort Hoskins	59.00	74.06	57.20	63.42	93	48	45	14	7	1	0	5	13	11	19	17	13	7	0	2.19
Block House	53.50	66.80	56.76	59.02	91	45	46	31	8	9	0	2	4	35	1	15	15	7	0	2.57
Fort Steilacoom	51.23	71.20	58.70	61.37	89	44	45	16	19	0	3	2	10	23	24	19	11	9	0	2.65
Fort Walla Walla	63.76	82.13	68.06	71.30	95	48	47	0	9	0	21	0	47	0	13	24	6	11	0	1.72
Fort Bellingham	55.46	66.63	56.83	59.64	51	48	3	1	1	0	17	48	7	14	2	13	17	10	0	1.35
Fort Simcoe	65.76	75.18	63.33	68.09	94	48	46	5	4	12	6	16	14	24	0	19	11	4	0	.48
Camp Hudson	72.86	83.56	76.50	77.64	89	61	28	3	2	3	74	8	0	0	0	6	24	9	0	3.45
Fort Cascades	60.43	74.16	60.30	64.96	91	48	43	0	1	0	9	22	49	4	5	18	12	8	0	3.40
Camp Scott ‡	48.71	65.07	46.85	53.54	76	35	41	0	4	7	2	4	3	21	1	12	2	4	0	.30

* Observations taken for twelve days only.
† Observations taken for nineteen days only.
‡ Observations taken for fourteen days only.

MONTH OF JULY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.	
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS								DAYS.	DAYS.	
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Amount in Inches.
Kennebec Arsenal	65.67	76.26	69.13	68.35	93	54	39	10	5	18	2	35	11	8	3	15	16	9	0	3.87
Fort Independence	66.32	78.54	68.22	71.02	93	60	33	5	18	12	8	1	23	9	15	18	13	12	0	2.80
Fort Adams	68.29	74.45	67.68	70.14	81	58	23	6	3	2	16	19	21	9	11	13	18	11	0	3.98
Fort Hamilton	75.20	80.09	70.77	75.35	88	62	26	18	5	1	5	5	23	9	27	15	16	8	0	3.87
Fort Columbus	71.16	80.03	72.70	74.63	91	63	28	9	3	23	12	13	14	17	11	27	4	8	0	4.49
West Point	69.71	80.01	74.03	74.58	88	62	26	26	6	4	10	10	2	4	4	29	11	8	0	3.17
Alleghany Arsenal	71.74	86.60	72.97	77.10	92	65	27	16	16	3	3	6	23	3	23	20	11	10	0	3.60
Carlisle Barracks	71.00	83.20	75.53	76.57	94	61	33	2	2	0	2	16	29	33	7	28	3	8	0	1.05
Fort Delaware	77.58	86.03	75.90	79.83	95	60	35	0	12	17	27	14	13	4	6	29	2	3	0	.60
Fort McHenry	73.80	83.41	76.87	78.02	94	66	28	11	6	9	5	19	20	14	9	21	10	10	0	3.23
Fort Monroe	76.71	82.38	79.10	79.39	91	66	25	0	27	23	10	4	22	6	1	20	11	5	0	2.60
Fort Moultrie	79.58	85.19	80.68	81.81	96	72	24	8	12	6	9	23	17	11	5	21	7	12	0	8.08
Key West Barracks	82.41	86.03	82.61	83.68	89	78	11	0	14	36	10	21	8	4	6	26	5	5	0	2.94
Fort Brooke	77.34	85.45	78.74	80.52	91	75	16	0	10	8	16	38	10	2	9	26	5	17	0	13.29
Barrancas Barracks	79.81	86.96	81.25	82.67	90	74	16	15	16	2	2	2	21	29	6	15	16	10	0	7.14
Mount Vernon Arsenal	79.46	86.90	77.73	81.36	96	72	24	6	16	10	10	11	19	8	13	18	13	11	0	7.31
New Orleans	81.96	84.67	84.09	83.57	90	78	12	3	1	15	16	16	25	1	16	21	10	15	0	7.72
Baton Rouge	77.87	86.29	80.12	81.42	91	75	16	0	6	15	8	17	11	21	9	7	24	20	0	5.66
Jefferson Barracks	76.25	88.77	79.40	81.47	95	68	27	1	22	12	30	5	2	0	1	22	9	7	0	7.67
Newport Barracks	73.10	83.90	78.35	78.41	93	63	30	19	3	0	1	11	16	11	2	13	18	5	0	3.98
Fort Mackinac	62.41	70.16	60.70	64.42	81	54	27	21	13	21	3	10	3	11	11	18	13	8	0	4.48
Fort Ripley	69.41	78.09	67.16	71.55	92	56	36	10	12	6	3	23	2	14	0	17	14	10	0	3.95
Fort Ridgely	67.03	79.09	67.22	71.11	89	57	32	7	12	25	12	12	3	13	9	18	13	11	0	4.75
Fort Leavenworth	77.84	89.66	82.26	83.05	99	69	30	0	5	23	43	9	4	1	8	15	16	12	0	10.57
Fort Riley	75.16	86.97	77.26	79.80	95	69	26	10	9	11	21	27	7	3	5	19	12	10	0	4.66
Fort Kearny	79.22	84.22	71.96	76.13	92	64	28	8	10	1	11	19	19	0	13	6	25	12	0	4.41
Fort Laramie	68.35	81.32	69.13	72.93	91	59	32	3	7	6	12	21	11	31	2	25	5	8	0	1.14
Fort Randall	71.35	89.54	71.80	77.56	104	60	44	13	4	17	20	17	2	11	7	21	10	13	0	3.85
Fort Belknap	84.32	93.58	81.93	86.61	97	76	21	1	0	8	33	35	15	1	0	30	1	4	0	2.50
Fort Chadbourne	75.81	96.16	82.65	84.87	103	71	32	3	0	5	45	35	2	1	0	15	16	7	0	.89
Fort McKavett	76.29	91.03	78.77	82.03	96	73	23	0	6	7	60	12	7	1	0	12	19	4	0	2.73
San Antonio	82.71	93.45	82.58	86.26	98	80	18	0	0	14	24	55	0	0	0	26	5	5	0	.14
Camp Hudson	79.70	94.06	83.35	85.70	100	75	25	0	0	1	64	27	0	0	1	20	11	0	0	0
Fort Mason	79.80	91.67	82.12	84.55	98	72	26	0	0	0	2	74	14	2	1	23	8	2	0	3.27
Fort Lancaster	76.80	95.00	80.64	84.14	100	72	28	2	0	0	1	88	0	0	1	19	12	3	0	5.00
Camp Verde	73.09	91.06	73.67	79.27	101	61	40	0	0	10	16	51	12	0	0	22	9	2	0	.55
Camp Colorado	78.97	95.67	81.35	85.32	102	70	32	3	24	21	18	3	4	1	0	13	18	3	0	2.33
Fort Brown	82.00	91.03	80.90	84.64	96	79	17	1	0	9	68	11	1	0	0	26	5	2	0	.70
Ringgold Barracks	82.20	95.96	84.38	87.91	101	75	26	0	0	4	89	0	0	0	0	27	4	2	0	2.30
Fort McIntosh	80.64	95.90	89.83	88.79	101	79	22	0	1	13	53	26	0	0	0	28	3	2	0	.50
Fort Clark	80.86	94.83	85.46	87.05	103	75	28	2	35	26	2	1	0	0	0	24	7	4	0	.10
Fort Duncan	81.20	98.40	86.64	88.76	104	77	27	0	0	0	66	0	0	0	0	17	14	2	0	.24
Fort Davis	72.50	86.00	76.55	78.35	95	69	26	3	12	4	10	8	7	5	10	23	8	9	0	2.07
Fort Bliss	76.32	89.55	80.71	82.19	100	65	35	5	17	4	4	7	14	27	16	21	10	6	0	1.52
Fort Buchanan	70.77	78.10	69.71	75.62	102	62	40	26	3	11	6	22	18	6	1	17	14	19	0	3.21
Fort Thorn	71.12	91.77	72.19	79.36	105	62	42	10	12	11	8	8	8	28	8	22	8	7	0	2.51

MONTH OF JULY, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								CLEAR.		RAIN.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow	
Fort Fillmore	78.25	93.61	77.38	82.74	100	70	30	0	1	11	25	19	25	9	6	18	13	5	0	2.50
Fort Craig	75.38	84.03	78.58	79.33	93	75	18	7	19	8	15	13	11	10	8	21	7	8	0	1.13
Fort Stanton	59.83	69.32	62.19	63.78	83	55	28	1	0	44	6	4	6	25	1	4	25	17	0	3.49
Albuquerque *	70.06	89.45	67.96	75.82	95	58	37	5	0	4	0	21	6	55	1	25	5	8	0	.36
Fort Marcy	64.55	76.51	66.68	69.24	85	59	26	4	6	5	15	7	29	4	21	19	12	14	0	4.04
Fort Union	66.19	80.64	64.51	70.44	92	57	35	4	1	12	29	21	12	7	13	22	9	7	0	5.80
Cantonment Burgwin	61.90	75.61	64.51	67.34	85	55	30	10	5	29	0	35	1	19	3	19	21	15	0	1.38
Fort Massachusetts	61.55	79.67	62.41	67.88	85	55	30	7	9	12	9	11	24	18	3	11	17	9	0	1.36
Fort Defiance	65.42	77.84	68.16	70.80	87	58	29	6	12	5	15	8	11	26	10	15	16	13	0	2.22
Fort Yuma	89.19	106.77	92.00	95.98	114	82	32	3	7	8	9	11	19	29	7	23	8	0	0	0
San Diego	68.97	77.58	70.45	72.32	92	72	20	0	1	24	18	0	29	23	0	15	16	0	0	0
Fort Tejon	65.35	85.30	79.32	76.65	97	60	37	0	4	1	3	10	29	34	21	31	0	0	0	0
Fort Crook	60.50	85.74	66.64	70.96	103	52	51	0	0	0	3	0	2	0	25	2	3	0	0	0
San Francisco	54.77	62.32	53.12	56.70	68	48	20	0	0	0	0	0	73	29	0	11	20	1	0	.03
Benicia Barracks	61.35	79.41	66.27	69.01	100	52	48	0	0	0	0	0	0	93	0	27	4	0	0	0
Fort Humboldt	54.12	60.77	55.06	56.65	64	50	14	14	5	2	1	4	9	4	23	13	18	0	0	0
Fort Umpqua	58.78	62.96	55.41	59.04	69	50	19	0	0	14	0	0	6	0	12	17	14	1	0	.30
Fort Yamhill	54.03	68.96	55.48	59.49	82	46	36	0	0	0	0	0	31	1	14	22	9	0	0	0
Fort Vancouver	60.29	73.38	63.77	65.81	89	55	34	5	0	3	7	3	8	18	19	19	12	0	0	0
Fort Dalles	64.10	81.71	69.77	71.85	97	57	40	1	19	5	3	0	4	35	22	27	4	0	0	0
Fort Hoskins	56.64	78.61	57.74	64.33	88	48	40	10	12	10	1	3	7	5	27	23	8	2	0	.30
Block House	54.90	66.87	57.51	59.76	74	50	24	28	10	2	4	7	1	40	1	21	10	2	0	.30
Fort Steilacoom	53.84	69.90	58.32	60.68	84	49	35	2	4	1	0	0	29	30	26	19	12	1	0	.55
Fort Walla-Walla	67.58	89.51	70.80	75.96	99	54	45	0	12	0	10	0	50	2	19	30	1	3	0	.26
Fort Bellingham	55.13	68.03	59.45	60.87	78	52	26	1	0	3	27	49	6	6	0	18	13	6	0	.42
Fort Simcoe	71.14	82.72	67.27	73.71	92	56	36	2	4	22	6	35	5	16	2	30	1	1	0	.03
Fort Cascades	61.12	73.70	61.61	65.48	85	54	31	0	0	0	0	7	49	33	4	23	8	0	0	0
Fort Bridger	60.90	76.96	56.13	64.66	84	47	37	0	1	0	4	7	49	21	11	25	6	4	0	.14
Camp Floyd †	69.77	81.61	64.55	71.97	90	58	32	6	3	7	8	6	3	11	10	16	2	0	0	0

* There is reason to believe that the thermometer at Albuquerque is not protected from the "direct or reflected rays of the sun," and that the temperature record, particularly at 2, P. M., is too high. R. H. C.

† Observations taken for eighteen days only.

MONTH OF AUGUST, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				EXTR.			DIRECTION. NO. OF OBSERVATIONS.								EXTR.		RAIN.		
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NW.	E.	SE.	S.	SW.	W.	NW.	Fair	Cloudy	Rain.	Snow.	Average for the month.
Kennebec Arsenal	61.35	73.77	61.00	65.35	[illegible]	45	49	11	9	21	15	[illegible]	4	[illegible]	[illegible]	17	14	11	0	4.60
Fort Independence	64.42	75.35	65.90	68.55	85	52	33	5	30	12	13	4	14	7	[illegible]	29	1	7	0	5.16
Fort Adams	65.32	71.80	65.61	67.57	89	56	33	8	8	13	19	11	[illegible]	4	[illegible]	9	19	12	0	4.78
Fort Hamilton	67.30	77.87	68.32	71.15	[illegible]	[illegible]	39	4	1	13	7	4	12	7	43	1	30	[illegible]	0	2.40
Fort Columbus	67.39	77.61	70.00	71.66	86	51	35	1	[illegible]	19	16	[illegible]	4	[illegible]	15	21	1	10	0	3.35
West Point	67.48	76.50	71.64	71.87	84	[illegible]	[illegible]	20	7	2	5	13	3	0	1	24	1	[illegible]	0	3.52
Allegheny Arsenal	66.41	79.61	69.90	[illegible]	90	[illegible]	51	23	17	0	[illegible]	[illegible]	[illegible]	1	14	15	18	9	0	1.90
Carlisle Barracks	64.71	78.23	71.84	71.92	90	[illegible]	[illegible]	6	10	0	14	[illegible]	8	[illegible]	[illegible]	[illegible]	4	[illegible]	0	4.05
Fort Delaware	70.41	81.20	70.41	74.70	92	[illegible]	[illegible]	20	10	8	[illegible]	[illegible]	1	1	[illegible]	[illegible]	1	[illegible]	0	1.90
Fort McHenry	70.38	[illegible]	73.35	74.75	91	[illegible]	[illegible]	17	8	10	6	[illegible]	[illegible]	[illegible]	11	18	13	11	0	3.37
Fort Monroe	75.51	81.81	78.23	78.50	[illegible]	67	[illegible]	[illegible]	28	[illegible]	14	[illegible]	9	1	[illegible]	[illegible]	1	7	0	2.45
Fort Moultrie	79.54	85.00	80.74	81.82	92	74	18	16	3	11	[illegible]	[illegible]	14	6	[illegible]	21	19	10	0	8.04
Key West Barracks	83.67	86.54	83.87	84.69	90	[illegible]	10	[illegible]	[illegible]	21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6	[illegible]	0	1.52
Barrancas Barracks	76.80	87.22	79.80	81.27	91	[illegible]	[illegible]	21	17	15	11	1	[illegible]	15	7	[illegible]	9	[illegible]	0	3.44
Mount Vernon Arsenal	[illegible]11	87.69	76.71	80.17	[illegible]	63	31	15	26	13	14	[illegible]	[illegible]	[illegible]	[illegible]	13	18	12	0	5.89
New Orleans	[illegible]1.64	85.64	[illegible]	83.93	[illegible]	73	17	[illegible]	[illegible]	16	[illegible]	[illegible]	[illegible]	[illegible]	14	[illegible]	[illegible]	[illegible]	0	7.35
Camp Lawrence	74.48	87.96	77.59	80.00	[illegible]	61	36	31	[illegible]	11	0	[illegible]	[illegible]	[illegible]	[illegible]	15	16	[illegible]	0	2.25
Jefferson Barracks	71.87	89.74	77.87	79.82	102	[illegible]	67	4	11	12	[illegible]	3	1	0	1	19	12	4	0	1.87
Newport Barracks	69.96	81.41	74.74	75.37	90	[illegible]	[illegible]	12	20	4	3	[illegible]	[illegible]	[illegible]	[illegible]	12	19	6	0	6.20
Fort Mackinac	64.38	70.29	62.87	65.84	83	[illegible]	[illegible]	[illegible]	6	18	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.95
Fort Ripley	64.64	76.71	64.83	68.76	89	[illegible]	[illegible]	12	11	2	9	[illegible]	[illegible]	[illegible]	[illegible]	21	19	[illegible]	0	1.77
Fort Ridgely	63.54	77.77	64.41	68.57	[illegible]	[illegible]	[illegible]	8	[illegible]	19	16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9	[illegible]	0	3.26
Fort Leavenworth	75.90	85.93	77.64	79.82	99	[illegible]	[illegible]	[illegible]	9	9	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6	6	6	7.26
Fort Riley	70.94	82.65	[illegible]	75.36	95	[illegible]	[illegible]	15	7	18	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	19	9	6	4.10
Fort Kearny	65.50	81.25	67.54	71.44	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]	19	[illegible]	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	0	1.76
Fort Laramie	65.77	80.54	65.71	70.67	91	[illegible]	[illegible]	[illegible]	[illegible]	15	[illegible]	[illegible]	[illegible]	12	[illegible]	[illegible]	9	[illegible]	0	1.81
Fort Randall	65.64	86.45	66.87	72.98	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9	[illegible]	0	3.96
Fort Arbuckle	75.51	92.77	80.80	83.03	100	[illegible]	[illegible]	10	11	[illegible]	19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	.53
Fort Belknap	83.58	87.42	85.03	[illegible]	96	[illegible]	[illegible]	12	11	7	30	11	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	0	1.57
Fort Chadbourne	71.29	91.97	80.81	81.35	102	[illegible]	[illegible]	1	6	5	11	[illegible]	[illegible]	[illegible]	[illegible]	13	[illegible]	9	0	.43
Fort McKavett	79.19	[illegible]	76.22	79.17	97	[illegible]	[illegible]	0	19	9	53	6	11	[illegible]	1	[illegible]	[illegible]	[illegible]	0	1.68
San Antonio	82.13	91.32	80.61	84.68	99	[illegible]	[illegible]	0	13	43	27	9	[illegible]	[illegible]	[illegible]	[illegible]	9	3	0	.51
Camp Hudson	75.00	91.22	80.58	82.26	[illegible]	[illegible]	[illegible]	0	0	0	46	47	[illegible]	[illegible]	[illegible]	15	16	4	0	1.68
Fort Mason	79.48	91.00	80.00	83.50	97	[illegible]	[illegible]	0	0	1	20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11	7	0	2.60
Fort Lancaster	73.76	90.32	78.29	80.79	98	62	36	7	1	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	0	2.76
Camp Verde	69.67	91.93	72.16	77.92	95	[illegible]	[illegible]	0	[illegible]	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	.05
Camp Colorado	75.45	94.72	79.87	83.34	106	[illegible]	[illegible]	3	[illegible]	[illegible]	8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	1.77
Fort Brown	81.09	91.80	81.54	84.81	98	[illegible]	[illegible]	5	13	[illegible]	44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	2.45
Ringgold Barracks	80.74	94.83	81.51	85.69	101	[illegible]	[illegible]	4	8	16	48	4	[illegible]	[illegible]	13	[illegible]	11	[illegible]	0	2.90
Fort McIntosh	80.41	94.77	86.58	87.25	[illegible]	[illegible]	[illegible]	1	8	12	47	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	3	0	1.32
Fort Inge	75.97	[illegible]	81.22	82.71	97	[illegible]	[illegible]	[illegible]	0	19	60	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0	1.52
Fort Clark	76.93	91.93	81.80	83.54	[illegible]	[illegible]	[illegible]	6	53	6	1	1	[illegible]	[illegible]	[illegible]	21	10	[illegible]	0	3.20
Fort Duncan	83.16	96.00	85.00	88.05	102	[illegible]	[illegible]	0	3	[illegible]	45	[illegible]	1	[illegible]	[illegible]	11	[illegible]	[illegible]	0	1.87
Fort Davis	69.58	[illegible]	75.67	75.81	90	[illegible]	[illegible]	1	9	6	19	1	16	16	5	21	10	[illegible]	0	2.42
Fort Bliss	72.40	87.42	79.30	79.70	97	69	[illegible]	15	35	6	12	9	6	3	7	18	13	4	0	.57
Fort Buchanan	66.06	87.16	66.46	73.18	98	[illegible]	[illegible]	18	12	13	1	31	16	2	0	21	10	18	0	3.50

MONTH OF AUGUST, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount of Rain in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Thorn	70.29	86.38	73.45	76.70	96	69	26	6	10	1	5	8	11	34	12	29	11	12	0	.09
Fort Fillmore	75.84	89.38	77.13	80.78	97	70	27	0	2	17	18	13	19	24	0	15	16	6	0	1.61
Fort Craig	71.70	79.93	75.61	75.74	87	67	20	7	12	10	11	17	12	13	11	27	4	9	0	1.42
Fort Stanton	54.32	68.03	57.96	60.10	76	50	26	0	2	30	10	1	6	29	12	6	25	16	0	8.09
Albuquerque	66.86	91.41	57.35	71.87	100	44	56	2	0	0	7	0	27	2	33	27	3	4	0	.49
Fort Macy	61.10	72.00	65.16	66.08	79	55	24	9	11	3	20	9	29	3	16	17	14	11	0	2.49
Fort Union	61.54	76.77	60.61	66.30	90	54	36	5	2	5	14	26	12	8	21	21	10	7	0	5.71
Cantonment Burgwin	57.19	73.13	61.87	60.43	84	50	34	10	3	23	0	24	5	25	1	9	22	15	0	2.39
Fort Defiance	61.58	73.00	65.06	66.55	84	53	31	12	7	4	6	15	6	32	11	12	19	14	6	3.32
Fort Yuma	82.51	104.16	88.51	91.72	112	77	35	3	12	15	9	10	14	23	7	16	15	0	0	0
San Diego	70.48	77.90	70.71	73.03	84	66	18	0	3	20	19	0	31	20	0	11	20	1	0	.03
Fort Tejon	64.30	83.90	74.45	74.21	94	56	38	0	0	0	1	6	55	47	4	28	3	1	0	35
Fort Crook	57.96	85.03	68.67	70.55	95	47	48	0	1	0	8	0	1	6	48	21	7	4	0	.03
San Francisco	56.38	63.48	55.51	58.46	68	53	15	0	0	0	0	0	91	2	0	11	20	1	0	.01
Benicia Barracks	60.80	75.87	65.16	67.27	89	56	33	0	0	0	0	0	2	29	1	26	5	2	0	.10
Fort Humboldt	54.96	61.16	56.51	57.54	65	50	15	14	6	4	1	0	12	5	14	11	20	1	0	.45
Fort Umpqua	59.68	65.06	57.00	60.58	78	52	26	0	0	5	0	0	16	0	58	17	14	3	0	.60
Fort Hoskins	60.16	82.40	60.60	66.72	100	50	50	18	1	0	0	6	10	15	24	16	15	3	0	.21
Block House	55.55	69.00	57.19	60.58	89	44	45	3	0	1	1	6	0	81	1	19	12	0	0	0
Fort Yamhill	54.32	73.16	58.35	61.94	94	46	48	0	0	0	0	3	41	21	12	19	12	4	0	.16
Fort Vancouver	61.74	75.51	65.58	67.61	98	53	45	7	4	2	15	3	7	23	32	15	16	7	0	.71
Fort Dalles	63.25	83.64	71.45	72.78	98	54	44	0	21	5	1	0	9	27	26	25	6	9	0	.75
Fort Steilacoom	55.93	71.03	59.67	62.21	88	49	39	7	1	0	2	1	13	26	43	19	12	10	0	4.47
Fort Walla-Walla	66.54	86.80	68.54	73.96	103	58	45	2	4	0	6	0	72	0	9	21	10	6	0	.90
Fort Bellingham	58.03	68.71	59.90	62.21	84	53	31	3	2	1	10	50	13	8	1	14	17	11	0	2.16
Fort Simcoe	70.42	82.21	71.41	74.68	99	57	42	2	1	10	9	3	11	29	10	23	8	10	0	1.04
Fort Cascades	62.74	75.09	64.22	67.35	92	53	39	0	0	0	6	6	64	14	3	17	14	4	0	1.00
Camp Floyd	67.00	82.96	64.32	71.42	90	56	34	4	8	10	25	4	6	1	35	28	3	8	0	.43
Fort Bridger	62.71	76.84	54.74	64.76	84	53	31	7	4	1	2	12	49	5	13	27	4	4	0	.30

* Camp Lawrence is about fifteen miles from Baton Rouge.

MONTH OF SEPTEMBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTIONS. NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	
Fort Independence	58.10	71.10	60.90	63.36	85	32	53	12	6	12	2	7	30	12	9	23	7	5	0	3.44
Fort Adams	61.06	67.50	61.63	63.39	77	45	32	4	1	3	13	13	20	7	29	20	10	5	0	3.47
Fort Hamilton	60.50	71.30	62.70	64.90	82	42	40	10	4	6	5	5	22	11	28	22	8	7	0	2.80
Fort Columbus	60.20	71.03	64.13	65.35	82	44	38	7	7	22	3	4	8	26	13	26	4	7	0	3.30
West Point	61.46	72.53	67.13	67.90	84	42	42	20	2	2	8	31	11	6	10	22	8	4	0	2.05
Allegheny Arsenal	56.80	72.84	59.63	63.12	86	32	54	15	17	2	3	21	24	3	5	15	15	4	0	1.03
Carlisle Barracks	56.26	70.90	61.80	62.98	84	43	41	0	6	2	14	14	21	24	5	21	6	8	0	3.10
Fort Delaware	67.90	76.40	65.76	70.02	90	52	38	4	7	12	8	6	5	0	48	28	2	2	0	.....
Fort McHenry	62.10	74.70	65.83	67.54	86	47	39	10	8	8	4	17	19	11	13	23	7	8	0	4.44
Fort Monroe	68.20	75.70	71.10	71.66	87	56	31	3	36	7	2	4	24	7	6	22	8	5	0	2.95
Fort Moultrie	71.30	77.43	74.00	74.31	86	59	27	31	16	12	5	11	1	3	1	23	7	7	0	5.86
Key West Barracks	79.76	83.60	80.20	81.00	88	77	11	11	23	23	8	5	3	7	7	16	14	8	0	10.42
Barrancas Barracks	71.53	84.50	76.53	77.51	93	60	33	21	17	26	4	6	8	3	2	21	9	10	0	4.38
Mount Vernon Arsenal	69.73	84.70	73.70	76.04	94	57	37	29	17	13	11	7	5	3	5	17	13	4	0	1.31
New Orleans	77.46	81.70	80.73	79.96	87	70	17	16	28	19	11	2	6	1	7	21	9	5	0	3.67
Camp Lawrence	66.80	86.10	71.03	74.64	92	57	35	28	4	5	12	2	1	27	11	14	16	7	0	2.00
Jefferson Barracks	61.06	82.70	69.96	71.24	94	52	42	0	5	3	36	6	10	0	10	24	6	4	0	4.27
Newport Barracks	60.13	75.73	68.70	68.18	85	47	38	10	0	3	4	41	16	11	5	20	10	2	0	.75
Fort Mackinac	54.56	60.06	53.76	56.12	79	43	36	15	6	19	4	14	7	18	7	14	16	8	0	2.27
Fort Ripley	51.90	64.06	54.63	56.86	83	32	51	5	3	2	10	18	5	13	13	22	8	13	0	4.14
Fort Ridgely	52.20	67.06	55.80	58.35	83	40	43	8	16	7	13	5	2	25	14	20	10	4	0	2.58
Fort Leavenworth	66.83	81.20	71.26	72.97	92	55	37	4	4	4	12	45	9	8	4	19	11	7	0	8 28
Fort Riley	65.83	81.40	67.80	71.68	94	51	43	15	10	1	16	32	7	5	4	23	7	3	0	1.66
Fort Kearny	55.26	76.06	59.40	63.57	88	46	42	16	9	5	1	15	16	7	9	11	19	5	0	2.10
Fort Laramie	47.53	76.26	57.36	60.38	88	33	55	0	3	3	6	11	16	35	16	24	6	2	0	.70
Fort Randall	55.00	77.80	58.86	63.92	96	40	56	12	5	16	10	11	12	9	14	23	7	5	0	.92
Fort Arbuckle	68.76	88.78	77.70	78.38	97	57	40	6	4	1	21	35	10	9	4	27	3	2	0	.63
Fort Belknap	77.70	85.23	80.90	81.27	93	71	22	3	6	19	24	12	17	0	9	26	4	3	0	.96
Fort Chadbourne	63.57	88.60	75.87	76.01	100	52	48	7	2	6	26	43	2	1	3	18	12	4	0	1.68
Fort McKavett	65.53	83.06	71.33	73.30	94	52	42	0	20	4	54	4	8	0	0	14	16	6	0	4.35
San Antonio	77.23	84.83	73.26	78.44	92	69	23	2	39	20	18	1	0	0	0	22	8	2	0	.70
Camp Hudson	71.20	84.60	74.86	76.88	99	62	37	0	2	7	75	1	0	3	2	18	12	7	0	1.14
Fort Mason	73.63	85.03	75.20	77.95	96	65	31	0	0	5	15	64	8	0	0	22	8	4	0	2.71
Fort Lancaster	67.10	85.46	72.50	75.02	93	54	39	4	0	1	1	73	0	0	0	22	8	2	0	.70
Camp Verde	57.30	73.60	60.90	63.96	86	43	43	0	1	20	32	15	12	4	6	20	10	1	0	.50
Camp Colorado	67.79	89.00	73.80	76.88	97	55	42	3	13	12	16	4	1	0	0	13	17	6	0	1.40
Fort Brown	77.30	86.13	76.70	80.05	95	71	24	10	18	24	31	5	1	0	1	17	13	11	0	5.77
Ringgold Barracks	74.73	90.36	77.20	80.74	98	64	34	16	22	11	37	1	0	0	3	22	8	5	0	2.00
Fort McIntosh	74.93	91.70	82.00	82.87	98	65	33	1	10	10	44	17	2	0	5	27	3	3	0	.90
Fort Inge	70.03	86.53	72.83	76.46	95	56	39	0	10	31	29	2	1	5	12	23	7	6	0	1.43
Fort Clark	73.06	88.30	75.93	79.10	96	60	36	3	34	20	1	4	0	1	0	18	12	9	0	2.67
Fort Duncan	75.30	89.20	79.30	81.26	102	68	34	0	0	0	39	0	0	0	7	13	17	4	0	2.90
Fort Davis	65.10	81.76	71.83	72.89	90	53	37	3	12	6	10	14	14	10	9	24	6	5	0	2.05
Fort Bliss	64.66	84.36	72.56	73.86	92	57	35	1	13	0	38	11	21	2	4	19	11	2	0	.40
Fort Buchanan	64.20	85.00	61.93	70.60	94	56	38	15	10	36	10	14	2	2	1	22	8	2	0	1.32
Fort Thorn	56.66	82	65.76	68.35	90	41	49	4	9	2	7	15	21	25	7	28	2	1	0	.20

MONTH OF SEPTEMBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Fillmore	69.23	88.60	72.13	76.65	96	62	34	0	0	15	21	7	28	19	0	18	12	0	0	0
Fort Craig	67.66	76.86	72.36	72.29	85	56	29	3	10	7	14	15	12	15	16	29	1	1	0	.04
Fort Stanton	45.93	69.23	54.46	56.55	75	36	39	0	6	15	6	0	8	52	23	20	10	7	0	.74
Albuquerque	58.26	92.00	45.16	65.10	97	40	57	0	0	3	1	30	3	15	5	30	0	0	0	0
Fort Marcy	55.30	71.20	62.16	62.98	78	44	34	11	3	0	16	11	26	4	19	27	3	2	1	.43
Fort Union	52.60	77.50	56.73	62.27	85	42	43	9	1	2	10	17	17	8	25	30	0	1	0	.40
Cantonment Burgwin	51.10	72.46	58.40	60.65	80	42	38	7	1	21	1	30	5	24	0	14	16	3	0	.87
Fort Defiance	51.77	74.03	58.86	61.55	80	43	37	6	3	7	9	9	11	35	7	22	8	3	0	.95
Fort Yuma	80.76	102.83	88.56	90.71	110	76	34	1	14	6	6	4	8	56	13	26	4	0	0	0
San Diego	66.56	75.66	69.66	70.63	90	60	30	0	19	10	15	0	16	19	11	13	17	3	0	.11
Fort Tejon	63.90	79.70	69.66	71.08	98	54	44	0	0	1	7	2	11	27	12	25	5	3	0	.51
Fort Crook	48.66	80.93	65.10	64.81	96	32	64	0	4	0	8	0	14	0	34	25	3	1	0	.01
San Francisco	57.53	65.33	55.70	59.52	85	49	36	0	0	0	0	0	81	9	0	12	18	0	0	0
Benicia Barracks	58.96	78.60	65.23	67.59	95	56	39	0	0	2	0	0	9	79	0	25	5	0	0	0
Fort Humboldt	51.46	62.00	56.36	56.60	69	45	24	9	1	6	5	4	17	1	20	13	17	3	0	.40
Fort Umpqua	56.40	65.66	55.83	59.30	75	50	25	0	0	9	1	0	40	1	33	17	13	10	0	2.24
Fort Hoskins	52.03	75.26	56.60	61.30	98	45	53	13	9	2	10	4	10	12	14	19	11	8	0	5.66
Block House	51.83	69.46	56.16	59.15	84	44	40	0	1	3	1	0	23	60	2	19	11	8	0	6.44
Fort Yamhill	49.60	72.00	56.70	59.43	95	41	54	4	0	0	3	2	11	25	12	22	8	9	0	4.02
Fort Vancouver	54.33	72.90	61.16	62.79	91	45	49	13	2	1	22	6	6	11	29	18	12	8	0	4.37
Fort Dalles	52.96	77.33	65.53	65.27	91	43	48	0	14	4	2	0	29	30	6	24	6	7	0	5.16
Fort Steilacoom	50.73	69.96	55.13	58.60	83	45	38	12	6	2	3	6	16	15	30	17	13	7	0	3.80
Fort Walla Walla	59.06	80.30	61.22	66.86	95	50	45	0	0	0	0	0	90	0	0	17	13	5	0	1.30
Fort Bellingham	55.10	66.43	56.33	58.62	78	45	33	13	8	0	10	40	5	8	1	18	12	11	0	1.66
Fort Simcoe	62.66	76.50	62.27	68.14	89	50	39	0	1	0	0	0	28	30	8	21	6	1	0	.85
Fort Cascades	55.93	72.23	58.53	62.20	88	49	39	0	9	9	12	3	54	1	2	21	9	6	0	7.33
Fort Bridger	49.60	72.56	50.40	57.52	83	28	55	2	3	2	2	1	5	16	14	23	7	7	1	.96
Camp Floyd	48.66	77.96	55.86	60.49	90	30	60	8	12	2	10	4	18	12	24	25	5	3	0	.18

MONTH OF OCTOBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				EXTREMES.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence	50.36	61.29	53.22	54.95	76	39	37	11	4	21	10	5	11	24	13	19	12	9	0	1.75
Fort Adams	51.81	58.61	54.13	[illegible]	71	36	35	2	4	4	16	4	29	3	35	13	[illegible]	8	0	3.45
Fort Hamilton	51.64	62.90	55.51	56.68	[illegible]	[illegible]	49	[illegible]	[illegible]	14	7	1	17	2	32	16	15	7	0	1.23
Fort Columbus	51.58	62.16	55.96	56.56	[illegible]	39	[illegible]	[illegible]	7	[illegible]	[illegible]	4	9	21	[illegible]	29	11	11	0	2.00
West Point	51.70	63.00	58.70	[illegible]	77	42	35	7	7	4	1	21	4	[illegible]	6	20	11	6	0	3.65
Allegheny Arsenal	[illegible]	63.48	52.51	[illegible]	[illegible]	[illegible]	[illegible]	7	21	1	15	12	28	6	3	16	15	9	[illegible]	2.40
Carlisle Barracks	[illegible]	63.90	52.40	55.62	[illegible]	[illegible]	[illegible]	6	3	9	14	7	27	11	3	24	7	7	0	1.80
Fort Delaware	[illegible]	64.21	57.53	[illegible]	[illegible]	45	39	7	13	6	6	17	[illegible]	6	35	21	10	5	0	1.36
Fort McHenry	[illegible]	66.48	57.93	59.11	89	[illegible]	[illegible]	13	7	11	19	3	11	19	15	18	13	5	0	2.34
Fort Monroe	61.55	67.51	64.10	64.38	81	48	33	9	32	9	13	0	21	1	9	20	11	2	0	.65
Fort Moultrie	66.93	73.74	69.54	70.07	83	[illegible]	35	2	11	5	9	12	12	4	12	25	6	3	0	1.18
Key West Barracks	[illegible]	81.22	78.35	[illegible]	85	75	[illegible]	31	25	7	0	0	0	5	16	23	[illegible]	3	1	1.61
Barrancas Barracks	68.16	78.96	71.09	72.73	[illegible]	[illegible]	[illegible]	[illegible]	11	7	14	10	2	7	16	24	7	10	0	7.89
Mount Vernon Arsenal	64.73	[illegible]	68.47	70.90	[illegible]	[illegible]	[illegible]	15	19	29	15	10	19	[illegible]	0	14	[illegible]	6	0	7.73
New Orleans	[illegible]	77.19	75.35	74.96	[illegible]	61	[illegible]	0	20	6	10	4	[illegible]	2	14	20	11	12	0	4.13
Baton Rouge	39.93	80.61	63.29	67.94	89	[illegible]	51	[illegible]	2	17	5	10	0	[illegible]	10	9	[illegible]	13	0	4.30
Jefferson Barracks	51.54	66.84	56.16	58.29	93	36	[illegible]	2	10	3	[illegible]	5	[illegible]	6	12	12	19	[illegible]	0	6.57
Newport Barracks	53.19	64.[illegible]	58.67	58.74	[illegible]	40	41	9	11	7	13	25	19	9	3	10	21	[illegible]	0	3.11
Fort Mackinac	46.06	50.12	46.64	47.60	68	[illegible]	33	10	16	19	14	13	[illegible]	11	[illegible]	12	19	10	1	2.81
Fort Ripley	38.93	51.00	43.00	[illegible]	67	20	47	14	[illegible]	[illegible]	7	5	15	[illegible]	[illegible]	[illegible]	22	5	1	.44
Fort Ridgely	39.77	[illegible]	45.19	46.32	81	[illegible]	[illegible]	7	21	[illegible]	[illegible]	0	5	9	15	15	16	14	0	.96
Fort Leavenworth	53.35	67.48	57.12	59.32	92	34	[illegible]	7	6	[illegible]	[illegible]	21	[illegible]	12	9	14	17	9	0	5.66
Fort Riley	53.22	65.81	55.06	58.03	93	38	[illegible]	11	24	7	10	17	6	10	[illegible]	16	15	9	0	4.51
Fort Kearny	43.19	58.67	47.45	49.77	91	[illegible]	62	16	16	6	12	[illegible]	11	6	6	6	[illegible]	10	0	3.35
Fort Laramie	35.71	48.64	[illegible]	[illegible]	87	25	62	10	[illegible]	13	14	7	[illegible]	[illegible]	[illegible]	[illegible]	11	3	1	1.43
Fort Randall	39.06	55.13	44.97	46.38	[illegible]	[illegible]	63	[illegible]	0	11	16	17	[illegible]	11	[illegible]	17	[illegible]	10	0	2.76
Fort Arbuckle	58.56	71.74	63.67	64.65	[illegible]	39	[illegible]	14	9	6	12	[illegible]	7	6	7	20	11	9	0	7.49
Fort Belknap	66.20	72.22	66.58	68.33	88	49	39	21	11	19	12	2	13	16	[illegible]	23	[illegible]	3	0	2.36
Fort Chadbourne	56.61	80.35	66.06	67.68	99	40	59	12	3	1	19	32	2	3	21	14	17	4	0	.73
Fort McKavett	60.06	79.19	65.77	68.34	90	38	52	0	11	1	44	5	14	0	18	14	17	3	0	.74
San Antonio	72.00	82.90	75.42	76.77	88	63	25	8	18	23	40	1	2	0	1	22	9	4	0	2.00
Camp Hudson	65.74	81.81	70.01	72.52	93	54	39	12	0	2	64	1	0	1	13	16	15	0	0	.03
Fort Garland	32.40	55.40	38.93	42.24	70	19	[illegible]	1	11	[illegible]	7	[illegible]	16	22	0	25	6	2	0	1.22
Fort Mason	66.80	81.06	71.74	73.20	90	[illegible]	[illegible]	[illegible]	1	2	0	43	15	4	15	21	16	3	0	1.05
Fort Lancaster	58.67	80.63	66.12	[illegible]	92	34	[illegible]	12	1	1	5	53	1	2	4	23	[illegible]	[illegible]	0	.98
Camp Verde	63.09	84.12	66.74	71.31	90	[illegible]	[illegible]	6	1	1	[illegible]	11	13	6	11	15	15	6	0	3.00
Camp Colorado	[illegible]	[illegible]	65.70	69.67	92	14	[illegible]	0	22	6	14	[illegible]	7	[illegible]	[illegible]	13	18	5	0	2.65
Fort Brown	74.58	84.96	74.12	77.88	89	65	24	2	1	26	[illegible]	15	6	1	2	17	13	6	0	2.75
Ringgold Barracks	71.45	90.67	75.83	79.32	97	51	[illegible]	18	19	14	36	2	1	1	1	[illegible]	3	3	0	.80
Fort McIntosh	70.70	87.19	78.69	78.84	[illegible]	53	42	9	6	15	41	16	0	1	6	28	3	2	0	.30
Fort Clark	68.20	86.10	72.23	75.50	94	[illegible]	40	3	[illegible]	17	5	0	1	6	7	21	10	6	0	.10
Fort Duncan	70.60	90.83	75.51	78.98	95	[illegible]	42	0	0	0	51	0	0	0	[illegible]	15	16	1	0	.35
Fort Davis	57.64	76.00	[illegible]	[illegible]	[illegible]	39	[illegible]	[illegible]	16	1	3	4	12	13	16	22	9	0	0	0
Fort Gates	54.80	78.30	64.70	65.93	[illegible]	37	[illegible]	[illegible]	[illegible]	19	9	[illegible]	12	[illegible]	[illegible]	29	[illegible]	0	0	0
Fort Buchanan	46.94	77.52	52.68	59.04	93	[illegible]	65	14	[illegible]	11	[illegible]	[illegible]	11	[illegible]	1	[illegible]	7	1	0	.60
Fort Thorn	38.83	75.29	52.93	55.68	87	26	61	11	13	[illegible]	4	7	16	[illegible]	11	29	[illegible]	0	[illegible]	0

MONTH OF OCTOBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cldy.	Rain.	Snow.	
Fort Fillmore	56.77	78.51	63.51	66.26	90	43	47	15	22	13	3	2	1	16	29	24	7	0	0	0
Fort Craig	52.16	67.93	61.74	60.61	84	43	41	3	10	5	13	15	11	18	18	29	2	0	0	0
Fort Stanton	38.03	60.19	45.25	47.82	76	22	54	2	7	6	9	0	0	36	40	18	13	0	3	.47
Albuquerque	46.38	79.83	44.00	56.73	96	30	66	1	0	7	1	27	2	4	1	31	0	0	0	0
Fort Marcy	42.51	56.22	49.21	49.31	73	29	44	10	4	1	7	3	25	5	35	24	7	1	2	.03
Fort Union	40.06	61.87	45.03	48.98	84	26	58	17	6	5	17	9	8	6	25	26	5	0	1	.30
Cantonment Burgwin	33.19	54.90	38.09	42.06	70	19	51	17	1	1	1	19	0	1	0	23	8	3	2	.56
Fort Defiance	37.87	59.64	43.45	46.98	73	18	55	2	5	2	8	5	12	50	4	20	11	1	2	.28
Fort Yuma	65.45	85.93	72.59	76.65	100	54	46	4	5	8	6	2	14	46	6	21	10	0	0	0
San Diego	57.97	71.74	61.87	64.87	82	43	39	1	11	13	11	0	34	14	9	13	12	3	0	.39
Fort Tejon	49.40	63.03	51.80	54.74	87	36	51	2	0	0	0	1	47	30	12	21	10	3	0	2.62
Fort Crook	35.41	60.00	49.06	48.15	80	20	60	4	2	0	13	0	17	0	23	19	12	7	3	3.67
San Francisco	54.32	62.45	55.83	57.53	77	39	37	2	5	3	3	5	45	26	1	16	15	5	0	1.95
Benicia Barracks	54.35	68.41	59.90	60.88	85	49	36	0	1	21	3	0	19	37	9	23	7	2	0	1.89
Fort Humboldt	47.67	57.41	51.51	52.20	63	38	25	5	2	2	3	6	18	0	33	15	16	8	0	3.77
Fort Umpqua	51.41	59.74	51.70	54.29	67	44	23	0	21	1	1	0	46	2	29	17	14	14	0	7.05
Fort Hoskins	40.77	59.93	44.58	48.42	69	31	38	15	5	1	7	3	10	5	35	16	15	14	0	6.67
Block House	42.40	57.68	48.00	49.36	69	32	37	0	1	11	9	4	18	28	29	17	14	14	0	7.71
Fort Yamhill	39.97	56.64	46.92	47.84	69	32	37	2	3	6	4	3	17	5	13	14	17	19	0	4.47
Fort Vancouver	43.77	56.87	47.58	49.40	65	34	31	7	26	3	29	7	18	2	9	12	19	13	0	3.55
Fort Dalles	40.48	59.29	49.96	49.91	68	29	39	0	16	0	8	0	29	32	5	19	12	11	0	3.32
Fort Steilacoom	40.67	56.09	43.83	46.86	68	31	37	9	13	2	11	13	19	12	11	5	26	13	0	3.39
Fort Walla-Walla	42.83	64.35	47.00	51.39	76	33	43	0	8	0	18	0	64	1	0	22	9	7	0	1.64
Fort Bellingham	43.70	53.90	46.83	48.12	69	35	25	27	5	0	5	16	2	5	2	12	19	18	0	2.39
Fort Simcoe	45.50	55.81	46.62	48.64	67	31	36	0	0	0	0	5	24	1	2	14	17	8	0	.83
Fort Cascades	44.90	55.51	48.29	42.56	65	2	27	1	5	10	0	19	24	10	24	13	1	12	0	5.78
Fort Bridger	34.09	52.16	35.48	40.57	78	22	56	4	1	3	6	1	37	5	32	18	13	2	4	.57
Camp Floyd	36.06	57.03	42.06	45.05	86	22	64	5	10	4	9	2	14	20	30	23	8	7	0	1.78

MONTH OF NOVEMBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	DEG. OF FAHRENHEIT.				RANGE.			DIRECTION, OR OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	Inches.
Fort Independence	34.10	42.13	33.66	37.60	64	22	42	23	16	5	2	3	8	11	32	16	14	6	4	3.37
Fort Adams	35.50	41.63	38.16	38.76	58	24	34	7	12	1	4	0	1	2	54	13	17	11	4	2.87
Fort Hamilton	36.73	42.03	38.93	39.24	65	24	41	4	10	17	1	0	1	7	40	9	21	4	2	3.58
Fort Columbus	37.76	43.10	39.43	40.09	62	24	38	1	13	17	11	9	2	15	31	17	13	7	3	4.00
West Point	38.60	45.66	41.37	41.87	66	30	36	6	19	2	4	4	1	32	17	21	9	6	3	6.39
Allegany Arsenal	34.33	42.26	36.90	38.79	60	23	37	4	21	1	2	3	2	17	3	6	24	9	9	2.37
Carlisle Barracks	34.83	41.13	39.09	38.63	53	23	30	0	0	2	12	6	19	38	13	17	13	8	4	1.65
Fort Delaware	49.30	45.66	39.81	41.92	61	25	36	6	15	11	2	0	0	5	51	19	11	4	4	1.01
Fort McHenry	38.73	47.50	42.46	42.90	67	27	40	11	12	1	5	4	7	27	23	10	20	14	3	3.97
Fort Monroe	47.66	51.66	48.00	49.10	67	32	35	3	19	7	4	6	12	9	31	12	18	6	0	4.45
Key West Barracks	71.20	73.10	72.03	72.11	83	62	21	0	18	2	0	23	0	13	17	22	8	10	0	3.72
Fort Moultrie	47.73	57.86	52.20	52.59	76	32	44	25	1	3	6	3	8	16	21	20	10	10	0	3.84
Barrancas Barracks	46.33	60.26	50.83	52.47	77	31	46	34	7	1	5	1	2	5	30	20	10	9	0	3.23
Mount Vernon Arsenal	42.50	59.93	47.50	49.97	76	30	46	29	7	6	6	10	3	4	25	13	17	6	0	3.98
New Orleans	51.83	66.9	55.40	54.73	73	43	30	16	5	16	6	2	0	1	32	18	12	9	0	3.20
Baton Rouge	40.67	57.32	45.17	47.72	75	26	49	3	11	12	3	1	2	10	18	13	17	8	0	3.85
Jefferson Barracks	33.33	42.33	36.54	37.40	60	14	46	1	6	18	16	1	5	6	48	8	22	8	5	3.94
Newport Barracks	37.83	41.70	39.50	39.67	59	21	38	9	3	1	1	18	1	19	7	1	29	7	5	2.02
Fort Mackinac	29.36	34.43	31.66	31.81	43	16	27	9	13	16	3	10	7	18	12	9	21	5	9	.78
Fort Ripley	21.70	29.40	23.19	24.77	44	— 3	47	14	2	4	16	3	4	13	21	7	23	0	7	.67
Fort Ridgely	23.00	36.40	24.50	27.96	42	— 4	46	2	14	16	14	3	6	19	16	7	23	3	18	96
Fort Leavenworth	32.60	40.20	34.80	35.66	45	14	31	22	20	5	6	2	1	8	22	22	8	9	3	3.90
Fort Riley	31.0	39.60	32.43	34.56	49	14	35	14	13	0	4	12	3	10	29	12	18	3	5	.74
Fort Kearny	28.03	38.66	30.06	32.25	45	10	35	24	3	2	8	12	6	3	19	4	26	3	5	.21
Fort Laramie	26.16	44.40	30.90	33.82	57	3	54	5	2	3	7	1	2	31	24	17	13	2	6	.32
Fort Randall	24.96	35.70	29.40	30.02	46	4	50	40	2	8	8	12	8	5	6	13	17	0	4	.26
Fort Arbuckle	34.42	49.59	41.48	41.83	68	12	56	16	8	7	5	11	8	11	24	22	10	2	3	1.80
Fort Belknap	36.63	52.63	42.03	43.76	73	10	63	13	5	3	4	2	5	5	26	25	5	1	1	.35
Fort Chadbourne	35.57	58.20	45.53	46.43	74	19	55	34	4	1	6	24	0	0	21	14	16	2	1	.78
Fort McKavett	38.73	60.10	47.76	48.86	72	22	50	5	15	4	10	7	15	0	33	14	16	4	1	.49
San Antonio	49.30	63.23	53.76	55.43	78	28	50	26	13	12	18	7	0	1	13	29	1	2	0	.87
Camp Hudson	46.60	63.33	48.13	52.70	78	27	51	21	1	0	42	0	0	7	19	13	17	4	0	.07
Fort Mason	47.26	66.53	53.80	55.86	78	35	43	31	2	1	11	16	14	1	14	21	9	1	1	.05
Fort Lancaster	38.40	61.63	47.96	49.33	78	26	52	19	3	1	8	33	1	7	6	22	8	1	0	.35
Camp Verde	40.60	63.48	45.03	49.53	84	19	65	5	4	1	20	11	5	1	32	18	12	8	1	.61
Camp Colorado	39.71	60.20	47.23	49.04	74	27	51	1	14	7	12	1	2	21	19	13	17	1	1	.60
Fort Brown	66.40	71.73	60.56	62.89	79	40	39	23	5	17	11	13	1	0	20	15	15	2	0	.45
Ringgold Barracks	51.03	70.66	56.46	59.38	82	32	50	27	25	3	20	6	6	0	3	19	11	4	0	.49
Fort McIntosh	50.90	69.76	57.63	59.43	84	26	58	24	12	7	20	9	0	0	16	24	6	3	0	.55
Fort Clark	45.90	67.10	52.46	55.15	82	29	53	18	29	17	0	0	0	4	9	20	10	5	0	.90
Fort Duncan	61.20	75.16	60.23	62.19	81	34	47	0	1	0	7	0	0	0	31	17	13	1	0	.77
Fort Davis	40.36	60.56	46.96	49.29	72	25	47	19	9	6	11	10	6	2	9	21	9	2	2	.17
Fort Quitman	30.63	60.16	40.20	43.66	79	15	64	25	8	0	19	22	5	5	6	21	9	0	0	0
Fort Bliss	43.76	60.70	51.40	51.95	75	30	45	9	5	16	5	1	14	15	25	25	5	1	0	.01
Fort Buchanan	33.06	64.30	39.63	45.65	74	24	50	25	20	19	4	13	9	0	0	25	5	1	1	.16
Fort Thorn	24.93	61.56	41.30	42.59	71	10	61	11	8	1	0	1	9	45	15	26	4	1	0	.04

MONTH OF NOVEMBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy	Rain.	Snow.	
Fort Fillmore	33.33	64.10	45.20	47.54	75	27	48	14	17	23	2	0	2	19	15	26	4	0	0	0
Fort Craig	35.73	52.53	46.16	44.80	63	27	36	6	16	3	11	13	13	17	11	29	1	0	0	0
Fort Stanton	24.96	13.80	33.00	33.92	57	10	47	2	3	19	2	0	3	29	32	13	17	1	1	.21
Albuquerque	29.76	64.93	34.70	43.13	86	20	66	1	7	37	3	16	2	22	2	28	2	0	0	0
Fort Marcy	27.50	42.00	33.63	34.37	56	17	39	7	7	1	14	3	12	6	30	22	8	0	1	.30
Fort Union	28.43	45.13	31.96	35.17	57	15	42	15	8	6	16	5	4	7	29	23	7	0	3	.72
Cantonment Burgwin	17.87	40.00	24.23	27.37	57	2	55	18	0	1	0	58	0	3	0	17	13	1	7	.58
Fort Garland	16.14	34.17	19.96	23.52	44	2	42	10	10	19	2	14	17	7	5	25	5	1	4	.68
Fort Defiance	24.83	50.00	33.16	35.99	64	12	52	8	3	2	7	7	8	31	24	23	7	0	2	.28
Fort Yuma	55.60	74.53	63.03	64.18	86	46	40	3	4	10	8	4	15	39	7	19	11	0	0	0
San Diego	50.83	66.33	56.60	57.90	72	40	32	1	12	14	9	1	28	22	3	14	16	3	0	.32
Fort Tejon	43.56	62 23	49.70	51.83	76	34	42	0	0	0	0	0	44	42	1	23	7	3	1	.25
Fort Crook	30.53	52.92	41.13	41.46	62	19	43	14	3	0	11	0	5	5	23	22	8	3	3	1.32
San Francisco	52.60	58.93	52.90	54.60	67	46	21	6	14	2	0	5	32	28	23	17	13	5	0	.53
Benicia Barracks	49.80	65.16	54.76	56.57	71	38	33	6	9	0	20	0	13	3	39	25	5	0	0	0
Fort Humboldt	47.10	54.86	49.90	50.62	62	35	27	18	5	6	6	7	8	2	5	13	17	11	0	3.38
Fort Umpqua	49.90	57.23	51.06	52.73	67	36	31	0	21	11	4	0	29	3	22	16	14	14	0	9.17
Fort Hoskins	41.00	57.36	44.70	47.68	75	29	46	11	9	5	3	3	6	21	19	12	18	16	0	7.50
Block House	43.20	56.40	47.66	49.08	66	32	34	0	5	3	2	10	26	31	13	12	18	15	0	11.95
Fort Yamhill	39.60	47.03	45.16	43.93	63	31	32	0	2	13	9	1	19	1	11	11	19	16	0	6.85
Fort Vancouver	41.96	52.06	46.50	46.84	63	32	31	7	18	11	15	8	16	5	10	14	16	13	0	4.25
Fort Dalles	36.30	50.63	41.53	42.82	61	25	36	3	12	5	4	1	33	22	5	18	12	12	0	6.48
Fort Steilacoom	58.93	51.43	42.60	44.31	62	27	35	4	9	4	8	18	27	7	13	3	27	19	1	4.65
Fort Walla-Walla	36.66	53.33	38.60	42.66	62	30	32	0	3	0	29	0	40	0	18	25	5	6	0	1.06
Fort Bellingham	41.93	49.50	44.26	45.23	56	32	24	23	6	1	6	32	4	0	7	9	21	18	1	4.03
Fort Simcoe	36.82	47.30	40.92	41.68	55	25	30	0	0	1	0	2	12	7	0	16	14	4	3	.84
Fort Cascades	41.93	49.06	44.76	45.25	61	33	28	2	25	37	5	5	5	0	11	11	19	14	0	8.30
Fort Bridger	24.20	40.33	26.43	30.29	57	9	48	4	6	6	11	0	19	28	11	16	14	0	7	.48
Camp Floyd	30.10	47.60	34.23	37.31	65	21	44	15	31	2	3	1	3	20	15	22	8	0	6	.50

MONTH OF DECEMBER, 1858.

STATIONS.	THERMOMETER.							WINDS								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE					RANGE.		DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair	Cloudy	Rain	Snow	Amount in Inches.
Fort Independence	27.61	34.77	30.64	31.00	52	11	41	15	7	8	11	8	10	12	20	15	16	4	5	1.64
Fort Adams	30.61	35.61	34.00	33.40	49	19	30	..	....	....	....	....	....	....	....	....	....	....	....	.....
Fort Hamilton	30.29	36.06	33.19	33.18	51	10	41	8	11	29	1	0	12	6	35	10	21	6	3	2.96
Fort Columbus	29.87	35.00	32.74	32.87	51	13	41	5	4	33	10	1	2	20	18	15	16	16	3	4.80
West Point	30.70	38.67	34.41	34.59	54	13	41	2	6	6	12	10	2	6	16	18	13	10	3	3.90
Allegheny Arsenal	35.68	42.50	37.30	38.62	55	19	41	13	13	2	12	3	27	1	16	10	21	14	2	4.12
Carlisle Barracks	30.93	37.51	31.61	33.15	46	15	31	6	11	3	6	5	14	32	16	15	15	5	5	3.30
Fort Delaware	34.01	39.35	31.22	35.86	47	18	29	5	13	19	4	4	6	2	26	18	13	7	0	1.12
Fort McHenry	37.00	43.61	40.19	40.25	54	19	35	6	29	6	12	7	8	22	7	10	21	16	0	5.65
Fort Monroe	45.61	49.31	46.54	47.15	64	28	37	8	36	7	20	1	18	2	5	12	19	9	0	5.50
Fort Moultrie	52.83	59.80	55.64	56.09	67	34	33	24	29	5	1	21	5	3	11	14	17	8	0	2.85
Key West Barracks	74.16	77.96	74.54	75.55	82	67	15	22	24	19	1	14	0	11	2	28	3	2	0	1.03
Barrancas Barracks	56.22	64.77	58.00	59.66	74	35	39	34	15	11	16	8	4	2	8	14	17	14	0	6.38
Mount Vernon Arsenal	51.50	64.57	53.90	56.65	82	31	51	34	9	18	6	22	2	1	1	8	23	11	0	7.57
New Orleans	59.77	62.71	61.93	61.47	76	41	35	21	4	17	12	13	4	1	7	12	19	12	0	3.42
Baton Rouge	54.29	62.96	58.32	58.52	74	32	42	21	17	21	11	12	3	3	5	4	27	15	0	11.73
Fort Smith	33.51	48.13	41.28	40.97	62	15	47	....	....	....	....	....	....	....	....	21	10	7	1	4.24
Jefferson Barracks	39.16	41.93	31.97	36.35	59	11	48	6	10	7	47	0	13	1	9	12	19	6	0	3.80
Newport Barracks	38.70	44.12	41.74	41.51	69	15	54	5	2	5	1	32	35	7	6	3	28	13	0	7.42
Fort Mackinac	22.89	26.38	24.12	34.43	37	8	29	12	5	15	18	19	7	16	19	5	26	1	15	1.05
Fort Ripley	7.48	17.81	10.58	11.96	36	—23	59	11	3	1	35	7	8	5	9	12	19	0	7	.62
Fort Ridgely	12.00	20.87	14.06	15.64	40	16	56	6	2	17	18	4	9	25	10	11	20	0	8	.28
Fort Leavenworth	25.61	38.64	30.58	31.94	62	—5	67	13	13	15	6	11	6	10	17	14	17	1	5	2.11
Fort Riley	23.61	33.97	26.51	28.03	58	—2	60	25	8	0	5	12	29	13	0	21	7	3	5	.75
Fort Kearny	17.32	36.80	22.64	25.58	58	—12	70	12	7	4	5	11	15	22	12	14	17	0	3	.07
Camp Walbach	23.80	37.06	26.53	29.19	56	10	46	9	1	0	0	0	1	18	16	9	6	0	0	0
Fort Laramie	19.93	35.13	23.00	23.02	57	—29	86	7	3	15	3	0	3	18	14	18	13	0	3	.45
Fort Randall	12.87	29.64	17.00	19.78	51	—15	66	24	0	13	6	22	4	12	16	23	8	0	2	.27
Fort Arbuckle	34.63	47.50	41.14	41.09	65	11	54	20	1	6	14	29	9	12	8	11	17	7	3	.62
Fort Belknap	33.96	51.45	38.70	41.37	65	12	53	20	0	3	15	17	19	11	8	19	12	3	0	.55
Fort Chadbourne	35.19	55.55	42.71	44.48	72	12	60	11	0	0	8	38	1	11	21	10	21	7	1	.33
Fort McKavett	41.06	57.90	46.70	48.55	70	14	56	2	24	2	15	11	21	0	22	7	24	11	2	1.63
San Antonio	47.49	57.58	50.39	51.81	70	26	44	22	23	36	5	5	0	0	2	8	23	11	0	1.60
Camp Hudson	45.61	62.16	46.46	51.17	79	22	57	3	0	3	58	0	0	0	20	13	18	1	0	.05
Fort Mason	46.00	60.48	51.06	52.51	75	22	53	19	2	0	1	18	22	6	15	15	16	3	1	.41
Fort Lancaster	37.83	57.90	46.42	47.38	72	14	58	21	3	0	3	43	1	6	1	19	12	3	1	1.58
Camp Verde	44.41	61.74	44.74	50.29	76	24	52	3	11	0	53	1	3	0	9	13	18	10	0	1.38
Camp Colorado	40.59	57.09	46.77	48.15	71	19	52	0	2	2	18	11	10	36	3	6	25	6	2	.50
Fort Brown	57.87	71.12	61.90	63.63	82	37	45	16	7	1	6	26	5	3	29	14	17	6	0	3.67
Ringgold Barracks	52.87	64.74	56.25	57.96	80	35	45	16	16	9	18	2	2	7	23	10	21	8	0	1.01
Fort McIntosh	42.97	65.03	54.16	57.38	75	30	45	24	7	7	28	10	0	0	17	23	8	7	0	.35
Fort Clark	45.66	61.70	49.76	52.36	74	26	48	17	26	9	1	0	0	7	9	15	16	11	0	1.60
Fort Duncan	49.71	66.00	55.61	57.11	85	33	52	0	10	0	18	0	0	0	25	10	21	5	0	.54
Fort Davis	37.80	55.22	41.96	44.99	68	20	48	16	20	1	11	12	7	3	17	18	13	3	1	.23
Fort Quitman	24.90	57.25	35.22	39.12	75	6	69	19	0	1	3	7	9	25	29	13	18	3	1	.33
Fort Bliss	33.16	50.10	41.51	40.93	64	20	44	6	11	7	0	0	0	22	11	27	4	0	0	0

MONTH OF DECEMBER, 1858.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cldy	Rain.	Snow.	
Fort Buchanan	30.03	51.60	34.22	38.61	62	15	47	34	22	6	7	13	10	0	1	18	13	5	5	2.58
Fort Thorn	27.12	54.83	35.96	39.30	65	8	57	12	3	1	0	2	17	50	8	22	9	2	2	1.07
Fort Fillmore	28.29	53.00	38.80	40.02	65	17	48	16	25	19	1	0	1	18	13	24	7	0	0	0
Fort Craig	27.16	39.54	33.48	33.39	51	9	42	14	8	10	11	9	7	16	18	25	6	1	5	.19
Fort Stanton	21.09	41.10	28.54	31.24	55	0	55	6	1	7	2	0	2	38	37	13	18	0	7	.48
Albuquerque	18.37	42.54	26.32	29.07	60	2	62	19	6	46	0	3	3	8	8	27	4	1	2	.11
Fort Marcy	17.90	30.80	23.51	24.07	38	0	38	19	12	3	8	1	16	4	30	19	12	3	8	.62
Fort Union	19.83	38.41	22.70	26.98	53	— 1	54	15	10	5	13	13	7	6	21	26	5	0	1	1.42
Cantonment Burgwin	7.67	28.55	9.80	15.34	47	—17	64	25	0	4	0	57	1	0	0	29	11	0	8	.83
Fort Garland	3.32	20.67	5.00	9.66	32	—20	52	0	15	19	17	17	15	9	1	24	7	6	3	.15
Fort Defiance	14.58	31.52	19.00	21.70	43	—13	56	8	1	1	13	7	11	32	20	16	15	0	9	1.31
Fort Yuma	44.61	60.77	52.81	52.72	67	34	33	1	9	6	6	2	12	39	15	19	12	5	0	1.03
San Diego	45.74	60.16	53.22	53.03	67	37	30	0	15	10	20	2	21	9	16	15	16	10	0	3.65
Fort Tejon	37.10	45.42	38.93	40.48	58	24	34	0	0	0	0	0	53	27	13	17	11	10	4	3.07
Fort Crook	19.45	29.55	20.93	23.31	34	—17	51	17	0	0	15	4	9	11	7	9	22	1	14	6.39
San Francisco	43.35	49.70	45.29	46.11	55	35	20	2	32	5	5	7	6	27	9	10	21	15	0	4.60
Benicia Barracks	40.00	49.86	43.32	44.38	58	30	28	26	28	5	7	0	8	3	16	20	11	8	0	3.91
Fort Humboldt	41.16	48.80	43.96	44.64	54	29	25	3	4	2	19	10	8	1	13	8	23	19	0	9.33
Fort Hoskins	34.10	42.71	37.13	37.94	52	9	43	14	10	2	16	9	4	21	14	10	21	25	4	13.71
Block House	35.80	43.26	37.84	38.96	56	10	46	3	15	5	11	4	45	3	7	7	24	25	2	22.59
Fort Umpqua	41.13	47.96	43.38	44.16	59	23	36	0	16	7	1	0	35	4	8	8	23	25	0	14.69
Fort Yamhill	32.83	39.22	35.38	35.81	52	10	42	3	0	10	17	0	25	2	4	6	25	20	4	11.37
Fort Vancouver	34.19	41.06	37.09	37.44	55	8	47	10	12	8	37	12	12	0	2	7	24	18	3	4.76
Fort Dalles	27.29	38.96	30.77	32.34	55	— 6	61	1	13	10	14	3	21	21	8	14	17	17	9	5.93
Fort Steilacoom	31.96	45.32	36.06	37.77	56	11	45	1	26	10	17	12	17	7	3	7	24	15	3	5.34
Fort Walla-Walla	29 00	34.06	28.42	30.49	54	— 4	58	0	1	0	18	0	63	0	11	16	15	6	6	1.36
Fort Bellingham	34.42	40.30	36.38	37.04	50	12	38	33	3	0	13	31	6	0	2	8	23	23	6	5.49
Fort Simcoe	24.66	33.17	28.39	29.07	48	1	47	0	3	0	1	4	24	9	1	14	17	6	5	.95
Fort Cascades	32.64	36.80	34.51	34.65	50	9	41	9	10	11	5	53	16	2	4	7	24	16	5	8.18
Fort Bridger	9.81	22.35	12.25	14.80	38	20	18	11	20	3	0	1	5	40	11	15	16	0	8	1.36
Camp Floyd	18.03	31.77	21.70	23.83	43	— 5	48	15	22	11	6	0	2	9	28	20	11	0	10	.15

Fifteen days.

MONTH OF JANUARY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	
Fort Independence	23.41	31.58	26.96	27.31	15	-10	25	13	9	1	8	9	12	25	13	17	14	9	5	1.99
Fort Adams	27.13	32.00	28.87	29.33	15	5	10	13	7	7	0	14	7	12	13	15	14	8	4	5.71
Fort Columbus	25.38	34.45	28.67	29.50	19	4	15	3	11	25	8	0	13	22	10	17	14	9	4	6.20
Fort Hamilton	26.64	34.15	29.81	30.20	22	1	21	7	8	9	1	0	15	9	36	16	15	9	4	5.15
West Point	27.70	36.58	32.48	32.25	20	7	13	39	4	2	6	1	0	6	10	20	11	7	2	4.93
Allegheny Arsenal	27.52	36.00	30.40	31.30	35	0	35	5	7	2	31	8	26	1	15	11	20	4	5	.43
Carlisle Barracks	24.30	35.35	26.40	28.64	50	0	50	0	5	9	7	5	9	29	28	22	9	5	3	.75
Fort Delaware	31.61	40.98	32.64	35.07	37	0	37	4	3	43	9	11	3	3	54	21	10	7	1	2.81
Fort McHenry	32.90	41.64	34.93	36.49	38	5	33	8	3	7	11	11	11	15	25	16	15	11	3	7.06
Fort Monroe	40.03	45.99	42.80	42.61	60	19	41	15	15	1	3	12	21	6	11	16	15	5	1	3.61
Fort Moultrie	44.03	54.87	49.19	49.36	67	25	42	23	11	3	3	12	4	12	21	18	13	3	0	3.65
Key West Barrack	67.48	70.50	68.88	68.95	80	55	25	13	18	2	2	7	0	5	13	21	10	3	0	2.43
Barrancas Barracks	45.16	57.67	49.41	50.75	68	22	46	38	14	9	3	7	3	4	17	17	14	12	0	6.43
Mount Vernon Arsenal	42.07	58.80	45.96	48.95	75	20	55	34	10	12	4	10	4	4	15	11	20	9	0	6.07
New Orleans	51.29	65.64	54.80	53.91	68	36	32	24	18	17	11	4	3	3	13	18	13	11	0	6.40
Baton Rouge	45.38	57.16	50.80	51.11	70	26	44	29	4	23	16	8	3	4	6	14	17	12	0	5.18
Jefferson Barracks	24.12	34.61	27.16	28.62	57	3	54	11	26	8	27	7	4	1	10	18	13	1	2	2.41
Newport Barracks	29.00	35.09	34.06	33.24	55	3	52	6	0	0	9	25	22	22	7	19	21	4	3	2.59
Fort Mackinac	15.93	22.93	20.25	19.70	40	25	65	19	15	6	1	11	8	15	15	11	20	1	11	.32
Fort Ripley	1.26	15.39	6.84	7.83	39	-38	77	6	0	1	19	11	13	15	5	20	11	0	2	.57
Fort Ridgely	8.77	19.64	13.41	13.94	42	-17	59	2	2	15	16	3	7	29	19	13	18	0	10	.61
Fort Leavenworth	26.81	37.36	30.29	32.65	59	- 5	64	5	2	1	11	9	13	13	27	18	13	2	5	2.24
Fort Riley	28.13	28.74	32.32	33.06	57	- 2	59	13	1	0	2	25	21	18	8	19	12	1	3	2.79
Fort Kearny	19.89	39.77	26.35	28.64	61	-11	72	6	9	0	6	8	20	15	24	12	19	0	1	.20
Fort Laramie	21.83	41.90	25.19	29.60	62	1	61	4	1	9	1	2	1	39	16	22	9	0	1	.01
Fort Randall	13.51	33.58	21.74	22.94	57	-18	75	21	2	1	3	17	8	9	13	23	8	0	3	.04
Camp Walbach	18.61	32.61	24.87	24.02	54	- 4	58	8	3	2	1	0	11	48	20	23	8	0	0	0
Fort Washita	35.71	49.90	42.96	42.85	62	17	45	15	6	9	6	9	8	2	1	16	12	3	0	1.29
Fort Arbuckle	34.88	49.70	40.64	41.74	63	15	48	17	3	3	14	21	21	0	14	21	10	5	0	.70
Fort Belknap	33.29	44.51	38.67	38.82	61	15	46	39	0	0	0	1	9	25	19	21	10	2	0	.23
Fort Chadbourne	31.90	58.10	40.77	42.92	74	14	60	16	1	3	13	27	2	12	19	19	12	4	0	1.05
Fort McKavett	37.77	57.22	45.12	46.70	79	22	48	3	16	0	19	7	22	2	24	10	21	6	6	.60
San Antonio	45.06	54.64	48.40	49.36	71	26	45	52	18	14	4	1	0	0	0	24	7	1	0	1.30
Camp Hudson	41.80	57.81	41.90	47.17	70	29	41	0	3	0	66	0	8	0	19	19	12	3	0	.60
Fort Mason	41.87	57.19	47.67	48.91	73	22	51	25	4	1	3	25	9	9	17	22	9	3	0	1.50
Fort Lancaster	33.90	57.64	45.29	45.61	72	10	62	26	5	0	6	39	1	4	2	21	10	1	0	1.20
Camp Verde	31.06	62.12	45.61	46.26	74	15	59	0	8	0	55	0	0	0	20	21	10	7	1	1.05
Camp Colorado	36.90	57.53	45.06	46.49	78	22	56	1	1	0	12	17	11	40	7	9	22	1	0	1.00
Fort Brown	54.51	70.35	59.69	61.31	87	30	57	10	12	11	15	22	1	3	19	17	14	5	0	1.75
Ringgold Barracks	49.09	67.00	56.48	57.52	82	32	50	15	7	4	31	1	2	5	22	16	15	6	0	.96
Fort McIntosh	46.96	66.77	53.33	55.69	80	20	60	22	12	3	26	15	0	1	11	23	8	6	0	.40
Fort Inge	42.13	59.00	45.58	48.91	71	19	52	10	25	0	5	7	28	2	15	13	18	5	0	.70
Fort Clark	42.00	62.90	49.14	51.34	75	21	54	21	24	11	2	1	0	5	4	20	11	1	0	.75
Fort Duncan	46.67	67.42	54.09	56.06	85	29	56	0	20	0	28	0	0	1	15	14	17	3	0	.74
Fort Davis	34.26	55.00	40.84	43.36	63	13	50	17	22	1	7	9	6	10	16	18	13	2	0	.29
Fort Quitman	21.22	58.35	32.00	37.19	73	- 2	75	21	0	1	2	10	5	15	37	20	11	1	0	.13

MONTH OF JANUARY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy.	Rain.	Snow.	
Fort Bliss	39.89	52.51	72.74	41.98	63	12	51	2	21	4	17	2	0	10	37	12	19	2	0	.10
Fort Buchanan	30.01	56.19	35.81	40.63	64	17	47	18	35	9	0	13	10	7	0	25	6	1	1	.54
Fort Thorn	26.00	53.80	37.83	39.21	67	14	53	13	23	7	2	0	2	38	8	25	6	0	0	0
Fort Fillmore	17.90	52.25	35.06	35.07	65	0	65	11	14	9	1	2	17	33	6	25	6	0	0	0
Fort Craig	26.90	42.77	35.77	35.12	51	18	33	8	13	12	10	10	14	11	15	29	2	0	0	0
Fort Stanton	24.58	46.03	32.35	34.32	59	10	49	4	3	11	3	0	1	10	28	17	14	0	3	.09
Albuquerque	19.38	56.09	21.80	32.42	61	7	54	8	5	17	0	11	1	38	46	28	3	0	0	0
Fort Marcy	16.24	31.90	23.61	23.91	41	— 5	46	23	9	1	5	1	10	5	39	25	6	0	1	.01
Fort Union	17.93	40.61	23.32	27.28	58	— 8	66	29	8	4	12	11	9	5	21	26	5	0	1	.25
Cantonment Burgwin	9.00	35.09	14.45	19.52	47	—10	57	14	0	21	1	27	0	21	3	20	11	0	10	.33
Fort Garland	—1.41	18.64	4.06	7.09	35	—15	50	0	16	22	8	7	22	16	2	31	0	0	0	0
Fort Defiance	9.77	34.26	19.35	19.55	45	—11	56	6	5	5	3	11	11	38	14	24	7	0	1	.02
Fort Yuma	15.77	65.19	55.70	55.55	73	35	38	2	6	6	7	1	10	55	6	23	8	0	0	0
Fort Tejon	39.04	52.03	41.14	44.06	66	30	36	0	1	3	53	5	5	21	2	25	6	2	1	.29
Fort Crook	13.22	27.36	20.74	20.11	44	—20	64	11	0	3	16	3	12	12	12	17	14	5	6	1.81
San Francisco	43.19	51.54	44.64	46.44	60	33	27	20	36	4	12	1	5	12	3	18	13	4	0	1.63
Benicia Barracks	40.61	50.51	43.87	44.99	62	30	32	26	28	4	8	0	8	2	17	18	13	3	0	1.35
Fort Humboldt	39.93	50.83	45.51	54.22	62	31	31	10	4	4	16	5	7	0	18	15	16	12	0	10.32
Fort Umpqua	41.74	49.83	43.06	44.08	64	32	32	0	0	21	5	0	37	5	21	11	17	17	0	9.08
Fort Hoskins	33.15	47.60	37.61	39.55	59	17	42	16	3	0	8	2	8	19	22	11	20	18	3	10.70
Block House	36.64	47.39	39.61	41.23	57	29	28	0	9	14	15	1	36	10	7	13	18	17	1	12.70
Fort Vancouver	33.64	40.74	37.22	37.20	49	21	29	15	23	8	7	4	10	10	16	8	23	16	0	5.77
Fort Yamhill	33.51	41.67	36.96	37.38	52	19	33	0	0	16	14	0	22	3	6	9	22	17	2	9.35
Fort Dalles	28.41	39.70	32.03	33.38	48	10	38	1	13	2	9	5	28	23	8	18	13	10	6	5.33
Fort Steilacoom	30.58	43.00	35.35	36.30	52	17	35	0	29	19	2	0	29	7	7	10	21	13	3	8.35
Fort Walla-Walla	31.70	39.09	33.02	34.70	52	14	38	5	7	0	22	0	51	0	5	17	14	2	1	.50
Fort Bellingham	35.97	43.38	37.74	39.03	53	26	27	46	3	0	4	26	11	1	0	14	17	16	5	2.36
Fort Cascades	32.83	37.51	34.48	34.91	44	22	22	11	17	11	9	19	15	5	3	12	19	14	2	7.72
Fort Townsend	37.19	43.00	38.74	38.31	50	29	21	3	0	1	32	19	13	17	8	14	12	4	0	.66
Fort Simcoe	24.22	34.41	27.50	28.72	47	9	38	1	0	0	0	3	11	13	0	16	15	3	10	2.50
Fort Bridger	7.61	24.29	10.48	14.12	29	—15	44	8	15	1	0	0	3	11	12	23	8	0	1	.19
Camp Floyd	7.90	30.39	14.78	17.69	49	— 8	57	15	36	3	1	0	0	1	37	26	5	1	7	.35

[1] Twenty-eight days.

MONTH OF FEBRUARY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTIONS, NO. OF OBSERVATIONS.								DAYS		DAYS		
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	Inches & Hundredths.
Fort Independence	36.35	34.21	28.82	29.79	45	9	36	6	7	18	4	11	11	30	33	14	14	6	7	3.18
Fort Adam	29.97	35.61	31.53	32.37	46	14	32	15	5	6	5	5	12	12	26	14	14	7	4	3.10
Fort Columbus	29.25	38.50	31.67	33.14	50	15	35	5	7	22	11	9	6	33	19	14	14	10	4	4.35
Fort Hamilton	29.21	36.25	31.75	32.40	53	17	36	2	10	9	8	4	12	5	34	13	15	4	5	3.60
West Point	32.60	40.32	35.28	36.06	60	20	40	25	3	7	2	18	4	5	15	18	10	4	4	2.30
Allegheny Arsenal	30.40	39.92	33.40	34.24	56	11	45	4	16	6	7	11	13	2	19	9	13	7	6	2.67
Carlisle Barracks	29.03	39.61	31.49	33.38	58	13	45	0	1	6	14	9	16	31	15	15	13	11	7	4.15
Fort Delaware	31.06	42.00	34.00	35.68	56	27	29	7	7	18	3	2	1	7	31	19	9	4	0	.22
Fort McHenry	35.67	44.07	38.42	39.39	65	25	40	8	18	1	6	9	10	17	15	10	18	13	5	5.79
Fort Moultrie	48.10	59.67	53.64	53.80	71	34	37	11	16	7	3	16	7	7	13	18	10	6	0	3.03
Key West Barracks	71.59	76.71	72.67	73.89	84	60	24	14	29	22	6	3	0	0	12	24	3	3	0	.79
Barrancas Barracks	54.71	63.75	57.96	58.84	72	42	30	25	10	11	13	12	1	4	7	14	14	10	0	3.07
Mount Vernon Arsenal	50.92	67.07	55.03	57.67	82	34	48	21	12	3	14	19	4	5	7	4	24	11	0	8.49
New Orleans	60.10	69.32	64.21	63.40	78	44	34	8	15	13	21	16	1	0	7	19	9	7	0	3.77
Baton Rouge	59.45	67.14	60.14	60.81	82	35	47	11	10	18	4	22	5	0	8	6	22	7	0	4.35
Fort Smith	41.80	55.76	46.73	48.09	76	17	59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson Barracks	30.32	45.07	35.57	36.98	81	8	73	8	4	9	21	11	5	6	16	7	21	4	0	6.10
Newport Barracks	33.89	42.10	39.75	38.57	65	13	52	8	8	7	4	14	16	22	8	7	21	6	2	6.20
Fort Mackenac	14.55	25.07	18.64	19.42	40	− 5	45	23	5	18	3	4	4	16	9	18	10	2	6	.54
Fort Ripley	4.10	24.21	14.28	14.19	39	−29	68	24	3	3	24	3	11	9	7	15	13	1	6	.50
Fort Abercrombie	3.29	16.71	7.14	9.13	35	−33	68	11	5	4	20	14	0	7	22	24	1	0	2	.60
Fort Ridgely	10.52	24.00	11.01	15.18	39	−15	54	1	3	19	13	1	2	19	19	12	16	1	6	.39
Fort Randall	12.85	31.42	17.78	20.68	54	−14	68	30	2	19	5	23	2	4	8	19	9	1	4	70
Fort Leavenworth	26.42	38.57	32.53	32.51	57	− 2	59	1	19	1	15	1	13	1	2	14	14	3	4	.59
Fort Riley	28.42	41.07	33.68	34.39	64	4	60	19	11	1	1	5	2	13	9	19	9	1	2	.16
Fort Kearny	20.57	41.43	24.32	28.77	61	−14	75	9	15	5	9	12	11	11	9	12	16	0	3	.37
Fort Laramie	24.25	44.33	30.82	33.13	56	−14	70	4	3	13	4	3	1	6	1	20	8	0	0	0
Camp Walbach	22.67	35.10	24.67	28.16	52	− 7	59	1	2	5	1	11	20	21	6	19	9	0	3	.10
Fort Washita	47.00	58.85	50.82	52.22	79	23	56	25	1	1	5	16	10	4	5	14	14	3	0	1.89
Fort Arbuckle	43.21	58.91	51.14	51.08	76	20	56	9	8	4	13	24	15	5	13	16	12	1	0	.50
Fort Chadbourne	44.03	67.82	54.57	55.47	82	22	60	12	3	3	7	38	4	7	10	9	19	4	0	.23
Fort McKavett	49.92	67.60	55.39	57.64	81	30	51	5	14	9	28	11	11	2	13	4	21	5	0	.06
San Antonio	58.29	69.00	61.82	63.03	85	37	48	18	5	12	18	12	7	2	10	10	9	2	0	.30
Camp Hudson	55.21	71.14	57.89	61.38	83	39	44	4	8	6	56	1	1	1	10	5	23	2	0	.03
Fort Mason	62.03	67.21	59.07	58.70	89	34	56	4	4	8	12	20	14	8	14	8	20	2	0	.15
Fort Lancaster	48.50	70.35	57.25	58.70	86	28	58	12	2	0	3	14	3	2	6	14	14	0	0	0
Camp Verde	50.96	70.03	54.67	58.55	79	32	47	3	0	0	19	3	7	0	15	16	12	10	0	.46
Camp Colorado	49.05	67.00	57.17	57.74	82	29	53	1	0	0	9	31	13	18	2	3	25	0	0	0
Fort Brown	63.67	75.32	65.64	68.21	87	44	43	15	11	11	14	23	1	6	4	12	16	3	0	1.55
Ringgold Barracks	60.14	76.21	65.10	67.15	90	40	50	10	18	5	33	0	0	6	12	18	10	5	0	1.80
Fort McIntosh*	53.43	75.37	60.06	62.95	93	37	56	3	10	3	12	15	0	0	7	14	2	0	0	0
Fort Inge	55.05	72.10	58.46	62.54	87	30	57	7	8	16	11	3	0	5	1	4	21	5	0	.67
Fort Clark	53.45	70.85	59.95	61.41	83	33	50	0	19	13	0	3	0	0	3	15	13	1	0	.10
Fort Duncan	56.14	74.82	62.78	64.58	89	41	48	1	4	0	13	0	0	1	20	6	22	3	0	.50
Fort Davis	46.06	66.14	52.21	54.81	75	33	42	1	13	20	7	12	12	8	6	18	10	2	0	1.08
Fort Quitman	32.75	67.82	45.46	48.67	82	12	70	6	2	3	1	1	8	34	23	16	12	2	0	1.20

MONTH OF FEBRUARY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow.	
Fort Bliss	41.89	63.43	55.14	53.48	73	29	44	4	9	1	14	20	2	5	23	15	13	2	0	.10
Fort Buchanan	35.61	61.57	41.89	46.35	76	24	52	3	12	23	2	20	17	5	2	13	15	3	7	2.36
Fort Fillmore	40.85	64.39	47.92	51.05	75	39	45	2	5	3	11	6	19	31	1	18	10	2	0	.14
Fort Craig	39.79	54.86	49.11	47.92	64	29	35	2	5	4	17	20	12	7	17	23	5	0	0	0
Fort Stanton	34.67	5 .11	42.92	43.91	60	22	38	5	4	3	3	0	2	39	28	7	21	3	0	.53
Albuquerque	31.14	61.85	32.50	41.83	70	18	52	8	2	5	0	17	5	11	8	21	7	0	0	0
Fort Marcy	26.96	39.00	31.82	32.59	49	15	34	8	4	1	3	5	18	12	35	17	11	1	5	.61
Fort Union	26.92	48.89	32.82	36.21	60	7	53	16	5	2	6	9	11	10	25	23	5	0	0	0
Cantonment Burgwin	23.35	45.03	32.03	33.47	54	2	52	10	1	20	0	29	0	22	2	8	20	0	9	1.35
Fort Garland	16.03	35.07	22.78	24.63	40	0	40	0	2	8	9	18	22	25	0	22	6	0	1	.15
Fort Defiance	27.60	43.75	33.89	35.08	53	12	41	8	0	1	1	18	23	29	1	12	16	0	7	.77
Fort Yuma	52.42	76.96	59.57	62.98	78	46	32	4	12	9	8	0	12	36	3	19	9	2	0	2.09
Fort Crook	28.03	36.96	29.89	31.29	45	4	41	5	1	11	5	16	14	18	3	6	22	6	18	5.96
San Francisco	46.14	53.89	47.17	49.06	63	41	22	0	2	5	12	13	8	41	3	9	19	19	0	4.82
Benicia Barracks	45.35	55.53	47.64	49.50	64	39	25	5	8	0	12	5	46	0	8	13	15	13	0	4.26
Fort Humboldt	43.75	51.07	46.64	47.15	60	31	29	7	0	2	24	19	12	5	6	5	23	23	0	10.10
Fort Umpqua	42.21	48.82	43.03	44.68	58	37	21	0	3	4	10	0	69	0	7	6	22	23	4	15.35
Fort Hoskins	37.10	45.28	39.10	40.16	56	31	25	2	9	2	16	3	16	13	16	5	23	20	8	12.12
Block House	39.64	46.78	39.03	41.82	55	32	23	0	0	7	19	8	37	11	2	4	24	22	5	12.30
Fort Vancouver	36.57	43.00	38.85	39.47	48	28	20	12	24	21	8	6	5	5	3	2	26	19	0	5.10
Fort Yamhill	35.50	42.00	36.85	38.11	52	29	23	1	14	14	10	0	16	1	12	3	25	16	10	10.57
Fort Dalles	31.75	44.53	33.96	36.74	52	23	29	0	12	6	10	4	24	15	10	13	15	14	12	6.00
Fort Steilacoom	32.14	43.07	35.50	36.89	54	25	29	3	11	11	18	3	7	1	30	14	14	6	6	3.42
Fort Walla Walla	33.28	41.64	35.10	36.67	50	17	33	0	4	0	23	0	52	0	5	15	13	4	4	1.62
Fort Cascades	34.53	38.96	36.00	36.49	47	28	19	25	14	0	1	34	5	0	5	10	18	13	6	8.54
Fort Townsend	35.78	42.32	38.42	38.84	49	31	18	2	1	7	22	20	9	17	6	13	15	4	1	.59
Fort Simcoe	27.64	37.84	30.70	32.06	43	18	25	0	0	0	0	8	8	11	2	9	19	4	15	1.19
Fort Bellingham	34.82	44.21	37.64	38.88	53	28	25	37	1	0	1	36	2	2	0	11	17	15	6	1.76
Fort Bridger	11.96	31.71	15.64	19.76	47	—10	57	18	5	0	0	0	11	19	8	17	11	0	4	.13
Camp Floyd	25.89	39.78	33.32	31.99	59	14	36	11	28	2	6	0	5	2	29	19	9	0	10	1.14

* Sixteen days.

MONTH OF MARCH, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in the Gauge.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	
Fort Independence	35.29	44.16	38.51	39.32	58	10	48	9	16	6	15	7	7	20	13	16	15	12	2	5.39
Fort Adams	36.64	43.10	39.01	39.58	51	15	36	15	2	6	17	7	17	15	7	16	15	15	1	6.82
Fort Columbus	39.03	49.71	42.96	43.90	59	17	42	4	4	0	20	6	4	13	29	18	14	15	1	7.50
Fort Hamilton	38.38	47.00	41.18	42.28	65	17	48	8	5	5	22	4	4	7	31	17	14	12	0	5.18
West Point	43.00	51.12	45.09	46.40	63	22	41	21	7	2	4	18	12	19	16	20	11	7	1	5.85
Allegheny Arsenal	41.32	52.13	44.19	45.88	72	26	46	9	14	1	17	11	37	1	3	16	15	13	2	3.83
Carlisle Barracks	39.84	52.35	42.71	44.96	70	20	50	9	1	7	11	9	15	36	9	21	10	12	1	5.15
Fort Delaware	43.45	52.41	46.19	45.35	69	30	39	6	12	2	19	22	3	5	29	23	8	7	6	4.38
Fort McHenry	41.09	55.25	48.77	49.57	66	26	40	5	13	14	10	14	6	25	19	14	17	15	9	6.95
Fort Monroe	52.84	58.25	54.45	55.18	70	40	30	4	14	9	5	17	23	10	6	18	13	6	0	3.80
Fort Moultrie	57.74	65.26	60.26	61.08	78	44	34	15	8	4	11	21	5	10	15	21	10	15	0	7.92
Key West Barracks	76.96	80.96	75.96	77.96	84	64	20	11	11	37	9	7	1	9	5	31	0	0	0	0
Barrancas Barracks	58.90	67.00	62.25	62.71	75	47	28	11	9	21	12	3	4	11	22	16	15	16	0	13.58
Mount Vernon Arsenal	57.07	70.66	59.53	62.42	82	42	40	13	7	3	21	16	7	6	29	10	21	9	0	10.82
New Orleans	63.29	68.90	67.25	66.48	81	52	29	4	9	21	15	7	10	12	13	18	13	12	0	7.84
Baton Rouge	57.64	70.67	62.51	63.60	83	4	79	12	3	10	12	21	8	9	18	12	19	13	0	5.10
Fort Smith	46.44	63.20	52.96	54.20	80	33	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.84
Fort Washita	50.38	67.70	58.16	58.75	84	35	49	4	0	3	9	22	17	14	7	25	11	1	0	.55
Jefferson Barracks	43.48	61.47	50.01	51.65	98	28	70	5	1	0	10	4	10	10	14	12	19	3	0	2.90
Newport Barracks	45.00	55.90	51.22	50.70	70	30	40	0	4	4	8	31	16	27	3	14	17	15	1	4.30
Fort Mackinac	29.51	34.90	30.51	31.64	47	2	45	12	4	20	10	2	3	11	18	13	18	4	12	2.11
Fort Ripley	26.70	36.25	28.19	30.04	48	15	33	21	3	5	14	10	14	7	19	9	22	5	8	4.49
Fort Abercrombie	18.80	30.74	23.00	24.51	46	1	45	28	15	16	5	9	0	2	15	24	7	0	5	1.80
Fort Ridgely	28.25	34.83	29.96	31.01	40	15	25	10	8	18	3	2	5	18	25	10	21	5	9	4.22
Fort Randall	28.70	41.83	31.06	33.86	65	12	53	35	5	5	13	8	2	13	11	16	15	1	6	1.76
Fort Leavenworth	38.68	54.84	47.42	46.96	78	25	53	1	5	3	25	2	15	8	34	10	21	7	4	1.55
Fort Riley	41.87	56.32	45.45	47.88	75	27	48	12	2	4	12	23	13	21	6	17	14	7	4	1.27
Fort Kearny	33.32	47.32	36.45	39.03	68	25	43	17	16	2	10	7	6	8	24	9	22	2	5	2.99
Fort Laramie	31.54	46.19	33.41	37.07	66	17	49	11	0	9	0	2	0	39	12	19	12	0	0	0
Camp Walbach	22.22	37.35	24.58	28.05	56	6	50	12	3	0	2	6	16	31	23	17	14	6	6	2.18
Fort Arbuckle	48.03	66.12	56.33	56.83	81	32	49	1	6	1	13	29	11	14	24	21	10	6	0	.92
Fort Chadbourne	44.06	72.77	55.64	57.49	90	25	65	3	0	0	13	35	6	5	31	21	10	3	1	.25
Fort McKavett	45.42	70.26	59.42	58.36	79	29	50	1	0	0	28	1	9	3	15	7	12	1	0	.20
San Antonio	58.61	77.10	60.58	65.43	92	48	44	37	8	0	1	29	10	5	3	26	5	3	0	.10
Camp Hudson	54.25	77.83	61.96	64.68	98	38	60	5	1	1	44	2	0	4	30	18	13	2	0	.02
Fort Lancaster	45.93	76.41	61.32	61.22	95	28	67	9	3	1	3	39	3	15	7	27	4	0	0	0
Camp Verde	52.07	73.41	57.74	61.11	90	31	59	8	2	0	24	16	6	3	29	21	10	5	0	.59
Camp Colorado	50.87	72.11	58.87	60.26	88	35	53	0	2	13	18	16	5	30	6	14	17	6	1	.61
Fort Inge	55.22	81.70	60.70	65.88	96	40	56	12	10	12	5	1	15	14	22	19	12	2	0	.08
Fort Clark	56.16	78.37	63.70	66.04	98	42	56	4	29	16	8	3	5	14	6	23	8	3	0	.30
Fort Duncan	59.00	82.25	69.83	70.31	100	43	57	13	8	5	30	0	3	1	23	21	10	0	0	0
Fort Davis	48.00	69.51	55.42	57.64	83	31	52	8	3	12	3	26	11	7	21	21	10	0	0	0
Fort Quitman	32.74	73.48	47.70	51.30	88	14	74	11	2	0	1	10	21	23	25	24	7	1	0	.01
Fort Bliss	42.99	66.35	54.71	54.65	81	28	53	9	20	1	3	16	2	3	39	29	2	0	0	0
Fort Buchanan	34.58	62.29	42.45	46.44	80	28	52	11	21	11	7	13	22	5	2	23	8	0	0	0
Fort Fillmore	43.50	64.61	48.54	52.27	80	27	53	9	7	15	16	10	20	19	4	28	3	0	0	0

MONTH OF MARCH, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW	
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.	Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	N.	NW.	Fair.	Cl'dy.	Rain.	Snow.
Fort Craig	40.94	57.77	50.26	49.65	75	30	45	3	5	6	7	24	22	12	14	29	2	1	0	.65
Fort Stanton	36.38	54.19	43.41	44.66	68	24	44	0	2	6	0	0	2	55	28	19	12	6	2	1.00
Albuquerque	29.01	60.25	41.00	43.42	80	16	64	4	1	1	6	3	11	62	5	19	12	1	0	.15
Fort Marcy	27.43	42.20	36.90	35.51	59	12	47	4	1	0	3	2	23	9	51	21	10	0	5	.50
Fort Union	27.74	49.68	33.06	36.82	65	12	53	26	6	1	8	9	11	6	26	26	5	0	1	1.00
Cantonment Burgwin	21.09	46.51	29.61	32.40	61	5	56	6	1	21	1	19	6	33	6	12	19	0	7	.66
Fort Garland	18.20	37.87	20.58	25.55	49	0	49	1	5	8	5	6	35	28	5	24	7	0	1	.25
Fort Defiance	26.84	46.61	34.35	35.93	63	12	51	9	0	5	2	4	21	38	14	16	15	0	5	.41
Fort Yuma	52.89	73.35	62.19	62.78	90	44	46	1	9	5	7	4	12	46	9	23	8	0	0	0
Fort Tejon	37.13	47.90	41.35	42.12	66	29	37	1	0	2	4	0	0	26	60	20	11	4	3	1.22
Fort Crook	27.09	38.83	33.45	33.12	52	15	37	10	1	10	5	5	19	23	6	10	21	5	14	4.06
San Francisco	46.96	54.25	47.96	49.72	61	42	19	0	4	0	0	1	3	69	16	15	16	9	0	1.99
Benicia Barracks	44.29	57.54	47.96	49.93	68	38	30	3	1	3	2	3	39	21	27	21	10	5	0	1.16
Fort Humboldt	41.90	50.45	45.71	46.02	59	32	27	6	5	0	10	9	12	1	1	25	6	9	22	6.90
Fort Umpqua	42.74	49.32	43.12	45.14	58	36	22	0	1	3	8	1	42	15	22	7	24	11	10	14.45
Fort Hoskins	37.71	45.51	37.77	40.32	59	31	28	10	0	0	0	5	18	28	28	5	26	3	27	15.56
Block House	37.51	46.70	39.77	41.32	52	30	22	0	2	0	9	8	30	32	12	25	6	26	0	22.57
Fort Dalles	37.00	49.35	38.70	41.67	61	29	32	0	18	8	5	0	17	32	12	16	15	18	6	6.07
Fort Steilacoom	35.35	41.58	36.38	37.78	51	28	23	4	0	10	16	16	24	4	19	11	20	13	4	7.75
Fort Walla Walla	40.87	47.90	41.58	43.45	54	34	20	0	9	1	22	0	56	0	5	15	16	14	2	3.90
Fort Bellingham	38.45	44.81	41.16	41.47	53	31	22	11	3	0	6	61	8	4	0	10	21	25	5	4.20
Fort Vancouver	39.74	45.22	40.51	41.82	56	32	24	3	18	17	17	10	14	5	9	3	28	29	2	9.60
Fort Vanhill	41.90	43.12	36.35	40.79	55	30	25	2	4	5	3	3	24	5	27	4	27	17	13	11.67
Fort Cascades	36.74	43.96	38.83	39.84	55	32	23	19	7	0	13	38	14	2	0	5	23	25	4	13.83
Fort Townsend †	37.50	44.70	40.40	40.86	56	32	24	0	0	1	31	19	11	8	2	10	14	4	0	.52
Fort Simcoe	34.56	45.53	36.96	39.01	58	24	34	0	0	0	0	14	30	10	1	10	21	8	9	1.38
Camp Semiahmoo	37.24	48.71	41.01	42.31	58	29	29	20	18	8	20	10	12	4	1	5	26	11	0	6.22
Fort Bridger	17.48	30.38	17.80	21.86	46	— 3	49	10	2	0	0	0	20	53	6	16	15	0	0	.24
Camp Floyd	29.58	41.32	31.09	33.99	60	17	43	22	10	5	16	2	4	4	30	24	7	0	8	.28

* Abandoned. † Twenty-four days only.

MONTH OF APRIL, 1859.

STATIONS	THERMOMETER							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE				RANGE			DIRECTION AND NUMBER OF OBSERVATIONS												
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N	NE	E	SE	S	SW	W	NW	Fair	Cloudy	Rain	Snow	Amount in Inches
Fort Independence	46.16	48.83	42.56	43.52	63	29	34	11	20	3	2	7	11	17	7	20	11	7	6	2.51
Fort Adams	41.16	48.56	43.00	44.24	68	33	35	6	3	13	2	4	1	17	4	17	13	9	7	3.86
Fort Columbus	48.40	53.70	47.70	48.30	73	35	38	4	5	16	2	1	5	13	4	17	13	12	6	6.05
West Point	47.10	55.00	50.20	50.78	70	36	34	16	4	9	1	12	3	9	2	16	14	6	2	4.00
Fort Hamilton	41.56	50.03	44.60	45.39	73	31	42	4	9	11	10	3	4	4	10	15	15	10	6	4.21
Allegheny Arsenal	45.80	54.00	47.32	49.56	75	23	52	5	13	3	4	8	13	1	3	13	17	13	4	4.79
Cubick Barracks	46.43	55.39	46.75	49.42	76	32	44	8	6	12	1	1	10	13	10	20	10	12	6	6.40
Fort Delaware	39.66	57.41	45.45	47.50	70	29	41	1	20	5	1	15	11	2	12	22	8	7	6	3.90
Fort McHenry	47.66	56.66	51.76	52.03	73	36	37	5	11	6	10	0	5	20	3	12	18	16	4	6.96
Fort Monroe	48.53	61.13	56.46	56.94	77	42	35	4	9	5	5	3	15	11	13	16	14	7	6	4.30
Fort Moultrie	60.53	69.13	63.86	64.50	89	41	41	1	4	5	6	6	13	5	15	23	5	5	6	1.70
Key West Barracks	77.16	81.36	77.43	78.65	85	66	19	0	0	0	0	13	7	1	7	28	2	2	0	.21
Barrancas Barracks	66.80	70.03	64.36	65.41	87	47	40	14	1	0	2	3	0	6	15	16	14	13	6	11.01
Mount Vernon Arsenal	59.57	72.97	62.50	65.01	85	46	39	14	7	3	23	27	0	3	10	19	11	9	0	6.42
New Orleans	67.30	73.03	70.96	70.43	86	54	32	0	3	14	28	30	0	6	0	10	11	9	0	3.89
Baton Rouge	60.73	73.10	65.53	66.45	90	47	43	13	7	11	25	22	7	6	8	11	13	9	0	4.79
Fort Smith	52.13	68.35	58.32	59.60	87	28	59	0	0	0	0	0	0	0	0	23	7	5	7	.74
Fort Washita	54.23	69.60	61.66	61.83	83	32	51	7	1	3	19	24	6	9	11	1	12	5	9	1.46
Jefferson Barracks	48.40	65.30	54.36	55.35	88	26	62	3	7	5	27	9	5	12	13	10	20	5	9	3.00
Newport Barracks	47.30	57.60	52.60	52.50	74	32	42	7	4	16	4	17	15	22	5	9	21	12	1	7.28
Fort Mackinac	34.56	40.30	33.73	36.19	61	23	38	9	17	20	5	1	0	15	13	16	14	4	11	.40
Fort Ripley	31.33	43.03	33.73	36.03	72	7	65	20	4	6	12	8	15	13	8	17	13	9	7	1.44
Fort Ridgely	31.93	43.30	35.86	37.03	74	16	58	4	15	17	1	9	6	19	21	14	16	4	7	1.62
Fort Randall	33.26	50.23	36.46	39.98	77	18	59	23	11	5	10	11	7	7	17	14	16	2	4	.22
Fort Leavenworth	41.63	57.27	48.67	49.27	75	18	57	2	11	3	22	1	13	19	19	23	7	8	5	1.88
Fort Atkinson	28.70	41.30	30.83	33.61	78	14	64	6	12	11	15	10	9	12	14	27	3	6	2	1.40
Fort Riley	43.66	60.10	49.80	51.18	89	21	68	11	8	32	7	16	8	23	3	16	14	7	3	.97
Fort Kearny	37.23	54.93	43.46	44.37	81	16	65	23	10	10	7	5	3	6	16	8	22	1	3	.65
Fort Laramie	37.26	53.76	38.93	42.31	70	11	59	6	7	16	7	6	7	29	12	13	17		6	.76
Fort Atkinson	53.16	67.36	59.80	60.11	86	32	54	12	3	0	7	31	13	11	16	22	8	5		1.61
Fort Clark Barracks	57.96	75.30	62.17	63.51	92	32	60	7	3	3	21	34	5	10	7	14	13	7	4	.89
San Antonio	60.30	77.63	65.27	67.73	89	35	41	10	4	1	22	30	3	0	3	21	9	7	0	1.35
Camp Hudson	61.30	80.76	69.40	70.48	91	45	46	12	1	2	33	4	0	2	4	17	13	3	0	1.03
Fort Lancaster	58.76	79.86	66.76	68.46	93	41	52	5	1	1	7	35	5	7	6	20	7	3	0	3.45
Camp Verde	57.70	80.40	61.80	66.63	95	40	55	10	15	7	12	35	2	0	11	16	14	1	0	.02
Camp Colorado	58.80	75.28	65.73	66.22	90	41	49	1	1	21	17	8	1	10	10	18	12	9	0	1.64
Infantry Camp	54.50	76.75	62.22	64.45	83	49	34	1	0	0	3	1	9	6	10	2	6	3	0	.84
Fort Inge	62.23	84.96	68.60	71.96	101	32	59	9	30	29	2	6	2	4	8	17	13	7	0	.11
Fort Clark	65.03	82.03	68.30	71.78	96	49	47	8	11	5	11	7	2	3	10	15	15	3	0	.35
Fort Duncan	67.06	87.56	71.70	75.44	104	53	51	0	12	0	56	1	0	2	7	15	15	1	0	.07
Fort Davis	59.36	73.60	61.50	62.67	84	39	46	1	14	1	9	9	18	9	6	25	5	1	0	1.68
Fort Quitman	48.03	78.06	54.93	60.34	93	24	69	6	1	3	15	6	13	33	13	21	9	1	0	.35
Fort Bliss	46.80	68.70	63.00	59.52	88	29	59	2	1	2	30	8	8	3	32	27	3	1	0	.01
Fort Fillmore	43.90	68.73	48.26	53.63	87	28	59	11	15	11	4	16	2	2	3	18	12	1	0	.50
Fort Fillmore	53.83	77.03	58.33	63.06	90	35	55	0	2	4	15	16	29	25	8	26	4	0	0	0
Fort Craig	54.13	64.90	57.09	56.69	81	32	49	4	5	6	9	20	11	11	14	27	3	0	0	0

MONTH OF APRIL, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy	Rain.	Snow	
Fort Stanton	41.53	57.90	47.60	49.01	73	22	51	6	2	23	2	0	1	53	9	16	14	1	1	.30
Albuquerque	39.50	73.30	53.30	55.36	98	22	76	0	3	25	0	0	2	58	2	21	9	1	0	.15
Fort Marcy	35.53	51.40	43.93	43.61	68	19	49	4	0	0	10	8	24	20	23	20	10	2	1	.08
Fort Union	35.20	55.10	39.96	43.52	74	15	59	16	9	3	8	14	44	4	22	21	9	1	3	.65
Cantonment Burgwin	31.20	54.60	36.93	40.93	70	12	58	8	2	21	3	20	3	31	2	9	21	2	1	.2
Fort Garland	30.30	50.36	34.46	38.36	67	10	57	0	7	7	3	3	33	36	1	22	8	0	1	.19
Fort Defiance	35.00	53.50	41.00	43.50	70	12	58	6	2	3	4	11	25	33	7	17	13	3	6	.85
Fort Yuma	59.63	78.73	66.30	68.22	94	46	48	1	6	8	14	4	16	34	7	20	10	0	0	0
Fort Tejon †	45.54	58.50	49.00	51.01	81	30	51	21	6	1	1	0	2	17	35	22	8	3	1	.....
Fort Crook	36.86	56.33	44.66	45.61	74	18	56	15	0	1	3	1	16	30	4	17	13	4	1	1.26
San Francisco	49.60	56.26	49.86	51.86	69	36	23	1	0	3	0	0	3	83	0	11	16	3	0	.14
Fort Ter Waw	51.06	58.50	47.03	52.18	77	38	39	0	1	10	11	0	24	34	10	17	13	7	0	3.47
Benecia Barracks	49.10	63.30	51.61	54.76	82	36	46	1	1	1	2	3	50	23	9	20	10	3	0	.29
Fort Humboldt	45.36	53.36	48.63	49.18	60	32	28	15	3	1	1	4	4	2	35	14	16	11	0	1.54
Fort Umpqua	47.76	54.36	46.06	49.40	64	40	24	0	12	4	0	0	14	11	49	16	14	11	0	2.22
Block House	49.72	54.33	46.63	47.22	73	32	41	2	8	3	8	1	9	39	20	19	11	14	0	2.41
Fort Vancouver	44.16	57.40	49.36	50.30	70	34	36	3	7	7	4	9	20	29	10	12	18	6	0	1.90
Fort Yamhill	39.63	54.06	44.13	45.94	72	29	43	3	0	1	0	9	31	11	22	11	16	10	1	1.50
Fort Walla-Walla	48.46	59.43	47.00	51.63	79	38	41	0	4	0	31	0	47	0	5	28	2	4	0	2.38
Fort Dalles	45.73	61.83	49.53	52.26	75	33	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Hoskins	43.00	58.42	44.86	48.85	77	32	45	4	6	1	1	1	12	18	27	14	16	12	1	2.11
Fort Steilacoom	38.80	54.50	42.40	45.16	66	25	41	17	17	0	9	1	9.	8	29	23	7	4	0	.80
Fort Cascades	43.90	57.63	47.73	49.75	69	35	34	5	2	9	5	13	53	3	0	13	17	9	0	3.14
Fort Townsend	31.60	39.50	34.40	36.16	60	33	27	4	3	1	9	8	14	6	24	20	10	2	0	.46
Fort Simcoe	46.43	60.13	49.13	51.89	74	36	38	0	0	2	1	13	22	3	0	14	16	3	2	.50
Fort Bellingham	43.10	53.83	46.43	47.88	59	33	26	5	0	0	3	56	7	6	4	19	11	8	0	1.52
Camp Semiahmoo	42.71	56.03	45.83	48.20	66	30	36	3	26	9	3	15	10	15	1	17	13	3	0	2.12
Fort Bridger	31.63	44.83	30.13	35.53	57	5	52	8	8	1	0	0	22	39	10	16	14	1	1	.29
Camp Floyd	44.40	56.46	41.26	47.42	76	20	56	21	5	8	6	16	5	11	18	23	7	2	1	.40

Eight days only.

† Medical officer absent. The rain incorrectly measured, and the amount is therefore not given. R. H. C

MONTH OF MAY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Independence	52.22	64.32	54.61	57.07	84	45	39	1	17	16	2	6	31	18	9	22	9	8	0	3.48
Fort Adams	54.32	59.38	53.29	55.66	66	42	24	6	14	15	11	21	22	1	3	17	14	10	0	1 25
Fort Columbus	57.29	67.16	58.45	60.96	82	47	35	2	5	51	13	6	2	13	0	18	13	8	0	3 90
West Point	59.70	69.42	63.19	64.13	78	50	28	22	5	4	4	32	15	6	7	22	9	9	0	2.89
Fort Hamilton	24.32	64.83	55.80	58.98	80	44	36	9	9	15	18	8	19	1	13	20	11	6	0	1.70
Allegheny Arsenal	60.58	75.48	60.87	65.64	84	52	32	6	32	3	8	6	25	4	6	20	11	8	0	2.09
Carlisle Barracks	56.87	75.25	60.48	64.20	91	50	41	0	23	8	6	8	17	25	4	24	7	8	0	2.20
Fort Delaware	63.16	72.06	62.90	66.30	87	50	37	0	12	7	3	3	3	16	49	25	6	4	0	1.90
Fort McHenry	58.71	70.48	63.00	64.07	87	50	37	9	26	9	12	21	19	6	4	17	14	13	0	2.74
Fort Monroe	63.09	68.87	64.03	65.30	80	50	30	1	23	29	6	1	17	5	7	21	10	5	0	3 80
Fort Moultrie	68.51	74.80	70.45	71.25	80	53	27	22	21	6	12	15	5	3	1	25	4	3	0	.73
Key West Barracks	79.00	83.58	79.16	80.58	88	75	13	3	40	16	1	6	1	19	7	27	4	5	0	2.97
Barrancas Barracks	72.06	79.48	72.29	74.60	88	65	23	6	15	13	17	9	12	12	9	25	5	9	0	2.39
Mount Vernon Arsenal	71.03	83.38	71.58	75.33	90	63	25	16	4	25	14	20	6	1	9	13	18	3	0	2 97
New Orleans	75.06	82.61	79.64	79.10	89	68	21	17	5	25	21	11	2	3	4	25	6	7	0	1 94
Baton Rouge	70.90	85.32	74.16	76.79	93	65	28	4	7	24	29	22	8	5	4	13	18	8	0	3.40
Fort Smith	67.19	80.80	70.16	72.38	89	55	34													
Fort Washita	68.80	78.64	73.25	73.56	88	57	31	1	1	3	16	29	5	2	6	14	17	7	0	4.82
Jefferson Barracks	63.09	80.22	70.74	71.35	89	54	35	2	4	0	15	0	16	1	25	11	20	10	0	11.28
Newport Barracks	61.19	75.22	68.94	68.48	83	54	29	5	5	5	0	30	4	15	0	18	13	6	0	1 70
Fort Mackinac	50.09	55.00	48.70	51.26	70	40	30	5	11	26	13	5	8	6	29	23	8	14	0	2.23
Fort Ripley	53.12	62.83	51.74	55.89	80	34	46	17	17	6	6	26	6	14	2	11	17	13	0	5.85
Fort Ridgely	55.51	65.83	56.45	59.26	85	37	48	5	13	15	11	6	7	15	13	12	19	17	0	6.47
Fort Randall	54.71	70.83	59.06	61.55	92	36	56	25	4	4	16	21	5	11	4	14	17	14	1	3.75
Fort Leavenworth	61.48	72.32	65.38	66.39	83	46	37	0	14	6	29	17	15	12	9	19	12	14	0	5.71
Fort Riley	62.18	73.16	66.67	67.33	85	50	36	8	11	9	18	21	12	12	2	12	19	13	0	5.70
Fort Kearny	58.45	70.67	59.51	62.87	87	39	48	8	15	5	15	18	9	6	10	9	22	20	0	3.95
Fort Laramie	52.93	64.12	51.06	56.03	85	31	54	6	3	25	2	3	1	47	5	19	12	6	2	2.11
Fort Arbuckle	67.93	79.61	72.03	73.19	89	53	36	6	14	8	19	39	2	2	3	20	11	10	0	4.54
Fort Chadbourne	66.19	86.45	74.03	75.56	101	51	50	6	1	5	35	40	3	1	2	12	19	5	0	2.21
San Antonio	74.55	88.22	69.67	77.48	98	61	37	6	12	16	20	38	0	0	1	22	9	8	0	2.45
Camp Hudson	72.19	89.19	79.90	80.42	98	61	37	3	1	7	02	4	3	0	3	17	14	5	0	3.00
Fort Quitman	63.29	92.25	66.80	74.11	100	51	49	0	0	2	10	3	7	61	10	19	12	0	0	0
Fort Lancaster	70.83	92.06	79.45	80.74	107	62	45	10	2	2	28	41	0	5	0	20	11	1	0	.40
Camp Verde	69.45	87.51	73.58	76.84	95	59	36	0	0	4	67	7	0	1	11	16	15	5	0	1.06
Camp Colorado	69.38	86.61	77.09	77.69	102	62	40	1	5	27	29	16	3	2	1	10	21	5	0	1.61
Camp Cooper	70.29	88.87	73.22	77.46	102	59	43	2	8	1	10	24	6	7	2	24	6	4	0	2.42
Fort Inge	74.06	92.77	79.70	82.18	102	64	38	6	17	13	16	1	0	1	4	13	18	5	0	1.42
Fort Clark	72.35	91.16	83.41	81.94	101	64	37	6	2	9	68	6	1	1	0	18	13	2	0	.65
Infantry Camp	69.58	85.77	73.83	76.39	99	52	47	0	24	5	36	1	7	1	16	11	20	7	0	3.62
Fort Duncan	76.51	94.20	83.10	84.60	104	67	37	0	10	1	74	6	0	0	1	11	20	7	0	1.37
Fort Davis	67.14	80.16	74.38	73.89	98	54	44	8	4	2	5	10	31	11	5	26	5	2	0	.31
Fort Bliss	64.06	80.84	74.51	73.13	95	53	42	4	34	0	15	1	6	0	31	27	4	1	0	.01
Fort Buchanan	57.06	80.51	61.45	66.34	91	41	47	5	12	11	8	13	22	15	4	24	7	0	0	0
Fort Fillmore	68.29	91.83	70.12	76.74	99	55	44	0	1	3	23	24	28	8	4	30	1	0	0	0
Fort Craig	63.22	90.32	70.67	74.74	96	49	47	5	1	2	2	11	11	12	10	29	2	0	0	0

MONTH OF MAY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow	
Fort Stanton	57.58	73.41	61.32	64.10	89	50	39	1	1	37	2	0	2	49	8	18	13	2	0	.29
Albuquerque	55.77	91.13	52.83	66.56	100	42	58	3	1	7	3	9	0	70	0	26	5	0	0	0
Fort Marcy	49.61	66.90	58.13	58.21	79	35	44	2	0	2	18	9	27	12	23	27	4	0	0	0
Fort Union	53.61	71.35	54.70	59.88	90	40	50	12	6	1	13	14	15	3	29	26	5	0	0	0
Cantonment Burgwin	47.96	69.06	50.77	55.93	80	31	49	11	1	29	2	28	1	20	1	14	17	1	1	.48
Fort Garland	45.45	63.45	46.54	51.48	80	30	50	0	4	19	21	5	20	23	1	24	7	2	0	.82
Fort Defiance	50.96	68.70	53.16	57.60	79	36	43	7	4	4	4	7	17	16	2	27	4	3	2	39
Fort Yuma	69.70	89.61	77.00	78.77	100	57	43	0	6	14	11	2	19	36	5	24	7	0	0	0
Fort Tejon*	54.35	67.61	59.58	60.52	86	40	46	59	0	0	0	4	6	21	3	26	5	3	0	.....
Fort Crook	48.45	65.67	54.51	56.21	85	36	49	21	2	7	3	0	16	29	4	20	11	6	1	.60
San Francisco	52.19	59.64	53.35	55.06	69	46	23	0	0	13	0	0	6	74	0	20	11	4	0	1.17
Benicia Barracks	53.32	67.10	55.54	58.65	81	46	35	2	3	1	1	0	21	42	23	23	8	3	0	1.43
Fort Ter Waw	53.87	61.19	49.70	54.93	74	41	33	0	1	4	16	0	24	29	19	21	10	8	0	2.00
Fort Humboldt	50.41	56.90	51.67	52.99	63	46	17	22	4	0	3	4	11	3	22	15	16	7	0	1.10
Fort Umpqua	52.03	57.80	49.22	53.01	65	45	20	0	16	0	0	0	24	4	49	16	15	15	0	3.19
Fort Hoskins	50.54	66.42	46.16	54.27	87	39	48	8	7	4	3	1	17	22	19	17	14	11	0	4.52
Block House	46.00	58.33	51.66	51.99	75	36	39	10	6	8	11	0	8	23	25	15	16	4	0	5.33
Fort Vancouver	50.12	64.45	54.71	56.43	82	42	40	4	0	10	6	7	21	25	17	14	17	11	0	2.00
Fort Yamhill	46.32	60.90	48.54	51.92	79	38	41	0	0	5	2	1	34	17	12	16	15	13	0	2.60
Fort Dalles	54.09	70.16	56.22	60.15	88	42	46	0	18	4	4	3	14	39	9	22	9	9	0	1.27
Fort Cascades	49.32	63.67	53.00	55.33	82	44	38	0	5	4	0	6	39	39	0	15	16	9	0	2.43
Fort Townsend	50.90	60.66	49.93	53.83	75	44	31	4	14	6	13	5	7	6	38	16	15	2	0	1.09
Fort Bellingham	48.58	59.41	52.35	53.44	69	43	26	2	1	0	11	45	9	9	3	20	11	11	0	1.94
Fort Walla-Walla	56.74	73.64	53.03	61.13	92	47	45	0	4	0	31	0	51	0	7	25	6	8	0	2.22
Camp Semiahmoo	52.42	64.35	52.70	56.49	72	46	26	12	9	5	8	20	12	21	6	23	8	8	0	1.69
Fort Steilacoom	42.22	61.00	48.83	50.68	76	37	39	12	18	1	13	7	7	7	18	21	7	5	0	1.40
Camp Floyd	59.96	69.06	51.35	60.12	90	38	52	23	6	6	4	24	5	20	1	26	5	7	2	1.24
Fort Bridger	42.51	57.45	41.48	47.14	74	29	45	6	5	6	1	0	16	36	19	11	17	4	1	1.09

* Medical officer absent. The rain incorrectly measured, and the amount is therefore not given.—R. H. C.

MONTH OF JUNE, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER	RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTIONS, NO. OF OBSERVATIONS.								DAYS.			
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	Amount in inches.
Fort Independence	59.60	68.93	60.93	62.95	90	45	43	0	13	13	2	10	31	26	5	16	14	5	0	7.59
Fort Adams	61.66	66.93	60.30	62.96	76	48	28	15	3	7	6	16	32	7	9	13	17	10	0	6.68
Fort Columbus	63.40	73.43	64.76	67.33	90	46	44	4	18	13	18	5	8	14	10	17	13	11	0	6.70
Fort Hamilton	61.76	72.66	62.60	65.67	90	45	45	12	6	2	17	5	21	14	13	15	15	12	0	5.17
West Point	64.97	73.63	68.06	68.87	92	49	43	11	3	5	5	8	7	4	5	20	10	11	0	5.45
Allegheny Arsenal	62.86	74.26	63.36	66.82	91	34	57	11	3	0	8	13	29	1	20	17	13	11	0	3.02
Carlisle Barracks	62.76	77.63	64.70	68.43	94	36	58	9	0	3	11	16	34	19	1	19	12	10	0	1.67
Fort McHenry	68.00	72.27	64.00	66.24	92	35	57	3	1	0	1	10	4	3	2	4	3	1	0	1.16
Fort Monroe	71.40	77.50	72.93	73.94	99	54	36	2	14	16	8	14	31	2	4	20	10	5	0	3.60
Fort Moultrie	76.70	79.96	76.53	77.73	86	63	23	1	9	7	15	22	10	1	0	20	10	11	0	9.06
Key West Barracks	81.56	84.53	81.80	83.36	86	80	6	1	16	26	4	7	0	0	1	24	6	0	0	5.20
Barrancas Barracks	76.30	84.66	77.80	79.80	90	70	20	14	15	12	18	6	12	3	0	24	7	5	0	2.93
Mount Vernon Arsenal	76.86	84.70	74.47	78.65	94	68	26	14	0	14	15	22	3	0	10	24	10	9	0	6.47
New Orleans	77.56	84.36	82.26	82.11	99	73	17	7	9	32	12	11	5	2	11	10	20	10	0	7.12
Baton Rouge	76.13	87.56	78.26	80.65	95	71	24	11	5	13	27	22	3	4	7	12	18	10	0	3.41
Fort Smith	70.90	82.83	71.60	75.11	95	57	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson Barracks	67.30	79.32	73.10	73.43	92	44	48	5	5	5	32	3	15	10	12	14	16	6	0	7.83
Newport Barracks	65.60	76.13	71.66	71.13	92	49	43	13	14	5	0	31	8	19	0	12	18	8	0	3.26
Fort Mackinac	55.96	60.27	52.20	56.14	78	33	45	9	6	10	7	6	15	24	19	16	14	9	2	2.62
Fort Ripley	60.60	69.06	59.63	63.03	82	39	43	20	8	2	27	7	8	11	6	23	7	6	0	4.00
Fort Ridgely	64.00	71.43	61.46	65.63	84	49	35	5	7	20	10	5	3	22	9	17	13	10	0	7.04
Fort Randall	63.60	81.96	66.33	70.63	96	42	54	13	6	15	9	33	2	9	8	22	8	8	0	3.15
Fort Leavenworth	69.98	78.29	70.66	72.94	89	55	34	0	10	5	27	21	16	2	14	10	20	14	0	6.96
Fort Riley	71.66	81.36	72.42	75.18	93	53	38	14	21	9	12	26	6	4	2	15	15	7	0	1.96
Fort Laramie	68.43	83.43	66.83	72.89	92	49	43	2	3	11	10	5	15	35	6	22	8	1	0	.63
Fort Kearney	66.46	79.86	67.63	71.32	90	48	42	9	10	6	22	13	6	1	1	5	25	14	0	.65
Fort Arbuckle	72.36	84.53	76.90	77.93	96	53	43	4	5	8	18	39	1	1	10	28	7	14	0	4.47
Fort Chadbourne	74.17	93.80	81.77	83.24	100	67	33	1	2	3	50	33	1	0	0	9	21	6	0	1.16
San Antonio	80.10	90.80	75.97	83.96	100	68	32	1	3	20	17	48	1	0	0	25	5	2	0	.40
Camp Hudson	76.20	94.46	84.13	85.59	101	70	31	1	0	2	82	3	0	0	0	17	13	4	0	.52
Camp Stockton	79.35	98.55	82.00	86.74	111	63	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Lancaster	77.13	96.66	83.43	85.76	104	70	34	3	0	2	81	2	6	0	1	25	5	4	0	2.90
Camp Verde	74.70	91.40	75.96	80.68	96	68	28	2	6	4	39	27	2	0	0	20	10	4	0	5.90
Camp Colorado	76.70	93.21	82.48	84.13	100	69	31	0	4	20	22	17	0	3	1	9	21	6	0	1.27
Camp Cooper	76.83	93.53	81.90	84.08	102	67	35	3	17	10	41	13	5	0	1	23	7	5	0	2.40
Fort Inge	78.96	97.93	82.20	86.36	103	73	30	0	6	30	47	3	0	0	0	15	15	3	0	2.80
Fort Clark	78.80	94.90	85.36	86.35	101	74	27	0	0	2	59	30	6	3	1	21	9	3	0	.80
Infantry Camp	75.56	94.73	78.83	83.04	103	59	44	0	35	4	44	0	2	0	3	16	14	6	0	3.70
Fort Davis	73.53	88.30	78.60	80.14	98	64	34	2	7	12	14	7	14	11	8	24	6	4	0	1.89
Fort Quitman	78.23	99.43	83.16	86.94	110	64	46	3	4	15	29	25	8	5	1	9	21	2	0	.08
Fort Bliss	72.20	92.70	83.13	82.67	102	67	35	0	3	11	9	51	15	6	6	26	10	3	0	.93
Fort Buchanan	71.43	92.00	77.33	80.25	101	66	35	15	5	16	11	11	15	10	1	9	21	2	0	.20
Fort Fillmore	79.00	97.00	81.66	85.89	106	75	31	0	4	7	19	24	13	18	2	23	7	0	0	0
Fort Craig	75.30	88.23	76.50	80.01	100	70	30	6	3	5	8	19	13	11	25	22	8	11	0	1.17
Fort Stanton	69.50	79.43	68.40	71.17	91	54	37	0	2	37	3	5	2	18	1	11	19	12	0	3.19
Albuquerque	63.90	85.20	56.70	72.53	111	44	67	2	3	16	7	19	0	12	0	29	1	0	0	0

MONTH OF JUNE, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount of inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Marcy	63.10	78.43	69.50	70.34	89	57	32	4	6	6	19	7	20	7	21	18	12	8	0	.97
Fort Union	63.60	81.63	63.73	69.65	97	50	47	8	9	6	19	16	11	1	17	21	9	6	0	4.80
Cantonment Burgwin	59.30	77.27	63.86	66.80	92	50	42	11	2	17	3	19	4	29	4	9	21	8	0	.48
Fort Garland	58.23	78.13	56.76	64.41	93	50	43	0	8	28	14	4	17	19	0	22	8	4	0	1.32
Fort Defiance	63.36	82.00	68.73	71.36	95	51	44	1	1	1	3	14	15	41	8	16	14	1	0	.63
Fort Mojave†	79.46	109.10	92.70	93.72	117	74	43	0	10	2	24	16	25	4	9	23	7	0	0	0
Fort Yuma	82.63	104.96	91.53	93.04	117	74	43	0	6	5	18	10	18	31	2	25	5	0	0	0
San Diego	64.33	75.30	67.10	68.90	90	60	30	0	8	15	19	0	31	16	1	13	17	0	0	0
Fort Tejon	70.23	87.66	75.83	77.90	100	50	50	66	0	0	0	6	6	12	0	30	0	0	0	0
Fort Crook	61.10	85.60	71.13	72.61	99	50	49	6	0	1	0	0	15	41	0	25	5	1	0	.....
Fort Tej-Waw	62.03	67.50	54.50	61.34	84	48	36	0	0	8	9	0	25	31	11	24	6	1	0	.30
San Francisco	54.10	63.86	56.00	57.98	73	50	23	0	0	6	0	0	27	57	0	24	6	0	0	0
Benicia Barracks	60.63	79.16	64.53	68.10	74	52	22	0	0	0	0	2	33	43	12	29	1	0	0	0
Fort Humboldt	55.63	62.53	55.36	57.84	75	50	25	28	2	0	0	2	5	2	16	19	11	2	0	.08
Fort Umpqua	60.63	66.76	55.73	61.04	82	51	31	0	12	1	0	0	26	4	47	20	10	4	0	.85
Fort Hoskins	60.90	75.53	56.00	64.14	102	45	57	14	4	0	0	0	5	9	31	22	8	3	0	.11
Block House	54.36	69.33	57.66	60.44	94	44	50	3	3	5	0	3	19	41	16	19	11	2	0	1.90
Fort Vancouver	58.20	*74.83	63.40	65.47	96	49	47	1	5	6	5	8	18	31	13	22	8	6	0	.16
Fort Yamhill	55.93	73.00	58.06	62.33	98	44	54	0	0	0	1	0	30	24	16	22	8	6	0	.09
Fort Dalles	63.03	81.33	66.03	70.13	104	50	54	0	22	3	4	2	8	25	22	25	5	2	0	.20
Fort Cascades	57.40	73.93	62.10	64.47	95	48	47	10	2	0	10	29	27	12	0	15	15	9	0	.63
Fort Walla-Walla	71.50	88.43	69.16	76.36	104	60	44	0	9	0	30	0	51	0	0	30	0	1	0	.04
Fort Townsend	56.16	65.50	57.23	59.63	84	45	39	24	1	0	14	0	8	11	31	17	13	5	0	.15
Fort Bellingham	54.46	65.86	57.96	59.42	83	50	33	0	0	0	2	46	9	11	3	19	11	10	0	1.46
Camp Semiahmoo	60.66	70.00	59.73	63.40	82	53	29	1	0	2	26	17	15	18	11	21	9	9	0	2.08
Fort Steilacoom	53.26	69.43	57.36	60.01	92	48	44	5	31	0	1	2	13	25	13	25	5	2	0	.35
Fort Bridger	62.30	79.10	57.40	66.26	90	41	49	13	5	3	0	0	2	36	18	18	12	1	0	.04
Camp Floyd	75.83	87.36	72.23	78.47	103	53	50	21	4	11	2	12	8	28	4	30	0	0	0	0

* Observations taken for eight days only.

† For an explanation of this excessive temperature, see pages 235 and 246 of this report.—R. H. C.

MONTH OF JULY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION OF WIND.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	
Fort Independence	64.41	78.45	67.70	70.19	[illegible]	56	32	0	16	18	5	5	[illegible]	19	6	[illegible]	9	6	0	1.62
Fort Adams	67.29	75.12	66.22	69.54	84	51	33	12	2	7	11	13	28	14	6	21	10	6	0	1.06
Fort Columbus	68.67	79.87	71.03	73.19	92	56	36	2	5	24	17	2	6	23	14	[illegible]	9	9	0	3.80
West Point	69.16	79.16	73.09	73.80	91	[illegible]	33	18	1	2	2	41	11	7	[illegible]	[illegible]	6	8	0	1.65
Fort Hamilton	66.35	80.03	69.22	71.87	88	54	34	10	10	1	12	1	19	11	29	[illegible]	9	11	0	3.96
Allegheny Arsenal	67.06	87.40	70.45	74.97	93	54	39	[illegible]	23	0	5	12	15	[illegible]	10	24	7	7	0	1.87
Carlisle Barracks	68.84	81.84	72.30	74.32	97	55	42	0	6	1	1	17	31	28	6	28	3	7	0	2.45
Fort Moultrie	77.03	83.71	78.58	79.77	95	64	31	[illegible]	9	3	2	16	14	24	1	23	[illegible]	8	0	1.25
Fort Monroe	74.51	82.03	75.77	77.42	94	64	30	[illegible]	23	21	[illegible]	[illegible]	22	3	[illegible]	20	11	6	0	1.56
Key West Barracks	83.19	[illegible]	82.54	84.13	90	79	11	0	[illegible]	27	17	24	0	16	0	29	[illegible]	[illegible]	[illegible]	3.90
Barrancas Barracks	79.22	85.93	80.03	81.72	92	69	23	11	11	10	5	9	13	12	[illegible]	[illegible]	8	15	0	3.72
Mount Vernon Arsenal	78.29	88.19	76.45	80.98	96	66	30	19	12	8	10	14	8	13	9	[illegible]	10	12	0	5.57
New Orleans	80.51	86.19	83.35	83.35	90	76	14	9	[illegible]	19	10	3	15	13	16	24	7	8	0	.93
Baton Rouge	77.51	89.67	80.70	82.63	94	71	23	10	14	4	9	20	10	19	6	13	[illegible]	11	0	3.95
Fort Smith	76.10	90.30	77.84	81.41	96	65	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Jefferson Barracks	74.29	89.22	[illegible]	81.33	100	60	40	[illegible]	31	5	[illegible]	10	13	[illegible]	5	[illegible]	13	2	0	3.80
Newport Barracks	72.00	84.35	78.70	78.35	97	55	42	11	[illegible]	16	6	[illegible]	9	[illegible]	2	[illegible]	13	1	0	1.30
Fort Mackinac	65.58	70.68	61.70	65.98	81	41	40	7	1	13	[illegible]	7	13	26	[illegible]	21	10	9	0	3.40
Fort Riley	79.38	[illegible]	82.16	83.25	106	66	40	6	2	2	23	53	5	1	1	19	12	2	0	1.45
Fort Ridgely	[illegible]	74.67	71.77	75.48	99	52	47	1	6	37	[illegible]	3	8	14	10	21	10	11	0	5.90
Fort Lassaine	75.51	92.06	72.25	79.94	100	59	41	6	[illegible]	[illegible]	10	[illegible]	5	[illegible]	4	19	12	6	[illegible]	1.33
Fort Ripley	72.71	81.51	72.42	76.54	95	57	38	12	13	0	[illegible]	4	[illegible]	6	6	[illegible]	5	2	0	.66
Fort Kearny	74.83	87.87	76.54	79.74	99	61	38	1	19	4	36	14	10	0	3	17	14	1	0	1.80
Fort Leavenworth	75.77	86.23	77.45	79.81	98	65	33	0	[illegible]	8	[illegible]	[illegible]	[illegible]	1	[illegible]	15	16	[illegible]	0	6.32
Fort Randall	73.70	97.00	76.25	[illegible]	108	61	47	8	1	14	15	[illegible]	16	7	3	25	6	4	0	.26
Fort Arbuckle	78.55	91.56	81.54	83.88	100	69	31	1	[illegible]	9	16	[illegible]	5	1	3	27	4	5	0	1.06
Fort Chadbourne	75.84	95.61	82.84	84.76	104	67	37	1	1	[illegible]	49	[illegible]	11	0	3	17	14	6	[illegible]	1.51
San Antonio	81.26	95.60	79.35	85.40	102	76	26	0	0	7	[illegible]	[illegible]	[illegible]	4	0	27	1	2	0	.45
Camp Stockton	80.40	97.22	78.35	85.32	105	71	34	....	...	...	...	...	...	...	...	...	...	...	...	...
Camp Hudson	77.69	95.16	84.25	85.50	102	[illegible]	29	....	...	...	...	...	...	...	...	...	...	...	...	...
Fort Quitman	75.22	88.09	78.77	80.96	94	70	24	2	2	[illegible]	16	32	10	9	2	1	30	[illegible]	0	1.99
Fort Lancaster	79.16	97.19	83.06	86.47	105	72	33	1	0	4	[illegible]	0	0	0	1	23	8	2	0	2.10
Camp Verde	75.03	91.80	77.38	81.40	97	70	27	0	1	[illegible]	68	11	2	0	3	[illegible]	13	4	0	1.28
Camp Colorado	79.72	92.80	84.94	85.81	100	75	[illegible]	0	3	12	40	5	1	1	2	4	27	8	0	.92
Camp Cooper	83.23	96.00	84.41	87.87	103	76	27	4	13	[illegible]	41	7	3	0	2	[illegible]	3	5	0	1.29
Fort Inge	80.16	100.51	84.06	88.21	106	74	32	0	0	10	40	29	3	0	0	18	13	2	0	.26
Fort Clark	78.45	96.74	82.13	85.77	102	[illegible]	[illegible]	0	1	1	86	0	0	0	0	13	18	6	0	1.46
Fort Davis	71.00	82.45	73.35	75.60	93	65	28	0	[illegible]	17	[illegible]	2	8	[illegible]	7	11	20	15	0	2.94
Fort Buchanan	68.51	78.12	70.16	72.26	[illegible]	66	22	[illegible]	15	[illegible]	16	11	24	11	[illegible]	2	29	16	0	9.24
Fort Bliss	73.26	[illegible]	79.82	79.82	99	70	29	3	2	26	6	43	6	0	7	16	15	9	0	1.60
Fort Fillmore	73.90	87.16	73.29	78.11	99	65	34	0	0	3	32	23	[illegible]	13	0	16	15	7	0	1.18
Fort [illegible]	74.90	84.26	78.26	79.14	93	71	[illegible]	7	5	[illegible]	14	24	12	13	[illegible]	[illegible]	13	13	[illegible]	7.43
Fort Stanton	65.90	74.87	67.87	69.54	83	63	[illegible]	3	1	14	11	[illegible]	1	17	0	10	21	16	0	3.30
Albuquerque	66.66	95.90	55.52	72.67	100	50	50	10	7	6	3	23	7	33	4	[illegible]	14	4	0	.25
Fort Marcy	63.64	75.16	69.16	[illegible]	84	[illegible]	26	7	7	[illegible]	26	10	18	2	11	16	15	13	0	2.02
Fort Union	[illegible]	[illegible]	64.16	70.07	87	57	30	9	6	3	21	[illegible]	12	0	[illegible]	[illegible]	7	[illegible]	0	5.76

MONTH OF JULY, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy	Rain.	Snow	
Cantonment Burgwin	60.87	71.74	62.29	64.96	79	54	25	13	2	17	1	18	1	38	0	6	25	23	0	1.85
Fort Garland	60.06	79.77	59.61	66.47	90	54	36	0	5	25	27	10	13	12	1	18	13	11	0	2.74
Fort Defiance	64.64	76.90	67.87	69.54	89	58	31	13	4	4	9	15	9	25	11	8	23	21	0	2.72
Fort Yuma	84.61	102.64	91.22	92.82	107	77	30	0	11	17	19	17	13	16	0	17	14	0	0	0
Fort Mojave	83.10	102.20	94.32	93.20	107	76	31	5	6	1	11	17	31	10	6	15	16	1	0	1.09
San Diego	67.29	78.26	69.55	71.71	83	62	21	1	11	10	16	0	29	14	12	8	23	0	0	0
Fort Tejon	68.51	84.74	76.45	76.56	95	60	35	65	0	1	0	5	8	4	4	31	0	0	0	0
Fort Crook	58.03	83.67	77.41	73.03	90	50	40	2	0	3	1	0	13	35	0	28	3	1	0	.....
Fort Ter-Waw	59.09	64.90	54.89	59.59	73	48	25	0	2	11	8	0	20	36	16	16	15	1	0	.08
San Francisco	52.38	61.64	53.25	55.75	75	50	25	0	0	0	0	0	13	80	0	11	20	0	0	0
Benicia Barracks	57.83	73.67	64.06	63.85	85	53	32	0	0	0	0	0	37	16	40	28	3	0	0	0
Fort Humboldt	56.06	61.45	56.19	57.90	68	51	17	20	0	0	1	4	18	1	17	11	20	1	0	.15
Fort Umpqua	58.32	63.35	55 29	58.98	69	52	17	0	8	0	0	0	13	6	65	14	17	1	0	.40
Fort Vancouver	59.45	77.16	65.22	67.27	90	54	36	5	1	3	2	8	9	46	19	23	8	5	0	.25
Fort Yamhill	53.80	67.74	52.83	58.12	86	48	38	0	0	0	0	0	24	48	9	22	9	5	0	.01
Fort Dalles	66.41	84.61	70.41	73.81	99	57	42	5	16	6	3	2	5	13	39	29	2	3	0	.03
Fort Hoskins	59.10	74.84	54.70	62.82	88	46	42	8	2	0	0	1	10	20	35	21	10	3	0	.06
Fort Cascades	58.96	75.22	63.83	66.00	85	55	30	2	0	0	0	29	58	4	0	17	14	2	0	.16
Fort Bellingham	56.06	68.77	58.41	61.08	78	53	25	0	0	0	2	57	14	7	1	22	9	5	0	.54
Fort Walla Walla	75.48	92.54	72.87	80.29	107	60	47	0	12	0	24	0	47	0	10	29	2	1	0	.14
Fort Steilacoom	54.60	72.90	58.10	61.86	83	45	38	25	24	0	0	5	5	12	22	24	7	2	0	.70
Camp Semiahmoo	63.58	73.19	61.38	65.03	81	56	25	0	0	5	13	15	16	12	2	26	5	2	0	.68
Fort Bridger	65.12	77.45	60.64	67.74	90	55	35	30	15	3	1	0	6	7	23	14	17	13	0	1.96
Camp Floyd	74.54	81.22	73.64	76.43	91	64	27	24	0	7	1	32	5	22	2	21	10	16	0	2.67

MONTH OF AUGUST, 1859.

STATIONS.	THERMOMETER.						WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.			RANGE.			DIRECTIONS OF THE WIND.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy	Rain.	Snow.	
Fort Independence	63.25	77.87	66.70	69.27	84	40	44	2	15	3	1	5	23	24	4	23	7	6	0	3.76
Fort Adams	66.61	73.96	66.19	68.93	80	57	23	5	11		13	15	2	7	5	19	12	10	0	4.06
Fort Columbus	68.32	78.93	70.67	72.64	89	56	33	0	15	2	17	3	7	11	5	20	6	12	0	7.10
West Point	68.09	78.45	72.58	73.04	88	61	27	2	5	2	3	34	17	6	5	22	9	8	0	6.70
Fort Hamilton	64.70	77.87	68.22	70.26	87	53	34	20	2	1	11	11	6	22	30	25	6	9	0	5.70
Allegheny Arsenal	65.00	77.13	67.83	69.98	88	50	38	13	15	0	19	9	16	6	35	18	13	13	0	5.60
Carlisle Barracks	66.56	79.35	70.09	71.89	86	53	33	0	3	0	12	17	2	29	4	23	8	11	0	3.25
Fort Monroe	74.45	79.55	75.16	76.38	90	68	22	0	38	13	6	3	21	0	5	25	5	3	0	4.25
Fort Moultrie	75.61	81.16	77.64	78.13	87	70	17	16	6	12	11	15	7	1	3	18	13	18	0	24.42
Key West Barracks	83.06	87.22	82.94	84.40	90	79	11	1	14	20	5	20	4	2	0	25	3	5	0	4.12
Barrancas Barracks	77.29	83.93	78.90	80.04	89	72	17	15	17	12	12	13	8	6	8	14	17	18	0	8.11
Mount Vernon Arsenal	77.35	85.97	75.58	79.63	93	70	23	19	11	25	17	7	1	2	5	19	12	12	0	4.53
New Orleans	80.41	84.55	82.55	82.50	91	75	16	1	11	18	20	1	7	12	11	20	11	11	0	6.17
Baton Rouge	76.77	88.64	79.77	81.72	93	68	25	7	12	20	11	15	2	12	8	18	13	12	0	6.03
Fort Smith	76.40	86.48	73.40	78.76	93	63	30	....	....	....	....	....	....	....	....	23	8	5	0	1.45
Jefferson Barracks	70.77	86.19	77.32	78.09	97	59	38	9	21	3	27	3	12	7	1	12	19	3	0	3.40
Newport Barracks	68.45	78.58	73.58	73.53	87	62	25	14	4	9	5	27	3	21	0	14	17	10	0	3.27
Fort Mackinac	66.90	71.64	62.83	66.81	86	50	36	13	5	4	11	3	12	20	13	17	14	6	0	2.62
Fort Ripley	63.84	74.42	64.70	67.65	89	51	38	15	9	1	21	7	13	9	20	25	4	4	0	1.65
Fort Ridgely	66.00	81.70	68.00	71.90	95	54	41	3	13	25	11	6	11	13	5	16	15	8	0	1.30
Fort Leavenworth	71.48	81.23	74.19	75.62	90	61	29	0	13	11	36	6	5	3	19	15	16	9	0	6.47
Fort Randall	65.70	85.54	68.64	73.29	100	58	42	16	1	16	13	25	6	9	7	22	8	5	0	3.84
Fort Riley	75.96	85.03	76.13	79.03	97	67	30	5	20	11	6	17	13	5	4	16	15	7	0	5.84
Fort Kearny	67.35	79.54	68.22	71.70	90	54	36	2	32	5	20	0	20	0	0	12	19	10	0	2.76
Fort Laramie	68.38	83.58	67.16	73.04	93	58	35	3	10	9	12	3	25	16	14	1	13	4	0	.57
Fort Arbuckle	77.06	92.74	79.35	83.05	102	67	35	5	25	14	21	17	4	0	3	27	4	7	0	2.15
Fort Chadbourne	75.39	96.93	83.68	85.33	103	70	33	7	1	2	37	24	0	1	1	8	23	7	0	1.36
San Antonio	79.52	99.32	77.87	85.57	103	76	27	0	1	10	12	37	0	3	0	29	2	2	0	5.60
Camp Stockton	79.10	98.00	79.20	85.63	102	72	30	....	....	....	....	....	....	....	....	....	....	....	....	....
Camp Hudson	79.19	97.98	85.61	85.57	103	51	52	0	1	15	66	6	0	0	9	20	11	3	0	1.32
Fort Lancaster	79.70	98.38	84.67	87.58	104	74	30	7	3	3	72	3	0	0	0	26	5	0	0	0
Camp Verde	76.12	94.25	81.61	83.99	100	71	29	1	2	8	66	13	2	0	1	23	8	2	0	1.01
Camp Colorado	80.37	92.67	84.48	85.84	98	76	22	0	0	27	26	1	0	3	0	0	31	8	0	2.69
Fort Inge	83.20	98.09	87.58	89.62	106	72	34	1	7	32	17	11	0	2	6	21	10	5	0	2.35
Fort Clark	80.51	96.74	86.74	88.10	102	76	26	0	0	0	69	1	0	0	0	16	15	3	0	1.39
Fort Davis	74.10	84.20	75.77	78.09	93	66	27	6	9	16	14	3	19	17	3	10	21	11	0	3.83
Fort Quitman	74.90	91.51	80.90	82.43	98	65	33	1	14	35	13	24	9	3	0	17	14	10	0	2.11
Fort Bliss	73.35	91.06	82.35	82.25	97	68	29	17	1	18	11	20	2	1	3	22	9	3	0	.80
Fort Buchanan	69.54	82.06	71.25	74.28	91	65	26	5	13	14	17	6	20	5	4	4	27	11	0	6.67
Fort Fillmore	80.13	94.41	77.12	83.88	100	70	30	0	0	8	23	32	25	9	0	22	9	4	0	1.15
Fort Craig	74.54	81.80	77.60	77.70	89	69	20	12	6	3	16	17	7	1	27	21	10	14	0	11.87
Fort Stanton	66.12	76.48	68.46	70.22	83	59	24	3	9	10	4	15	16	21	0	5	26	17	0	6.93
Albuquerque	67.22	95.67	55.38	72.75	99	50	49	8	8	17	3	12	6	37	2	13	18	4	0	2.39
Fort Marcy	66.30	73.77	66.74	68.93	83	57	26	12	3	7	18	15	10	7	20	15	15	16	0	2.44
Fort Union	61.05	74.45	63.03	66.35	89	54	35	13	11	2	17	8	13	3	26	21	10	10	0	7.18
Cantonment Burgwin	61.90	73.58	58.38	64.62	83	53	30	15	2	14	10	22	7	22	1	7	24	17	0	2.87

MONTH OF AUGUST, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy	Rain.	Snow	
Fort Garland	54.93	71.32	56.41	61.89	86	40	46	0	12	26	22	8	13	10	2	20	11	10	0	1.75
Fort Defiance	62.12	74.58	65.00	67.23	84	55	29	12	6	1	18	8	6	33	9	16	15	18	0	2.17
Fort Yuma	83.30	101.51	90.19	91.66	109	77	32	1	15	22	18	8	16	11	2	20	11	1	0	.50
Fort Mojave	83.42	104.22	92.45	93.36	111	75	36	3	2	1	9	55	18	2	0	26	5	0	0	0
San Diego	66.35	75.22	68.29	69.95	80	60	20	5	14	11	13	0	22	16	12	10	21	0	0	0
Fort Tejon	63.51	82.35	73.26	73.04	88	58	30	25	1	10	6	9	3	22	7	31	0	0	0	0
Fort Crook	52.38	81.83	68.25	67.48	89	46	43	0	0	5	0	0	11	11	0	29	2	1	0	.05
San Francisco	55.22	61.90	53.80	56.97	69	50	19	0	0	0	0	0	26	65	2	6	25	0	0	0
Fort Ter Waw	56.11	65.54	56.96	59.63	77	52	25	0	0	15	5	0	19	32	22	14	17	3	0	1.42
Benicia Barracks	56.99	73.58	60.80	63.76	89	54	35	0	0	0	0	0	20	23	50	25	6	0	0	0
Fort Humboldt	56.29	63.25	56.93	58.82	70	51	19	3	1	0	1	15	16	1	27	9	22	2	0	.....
Fort Cascades	57.51	72.83	62.90	64.26	90	51	39	2	9	0	0	59	13	10	0	14	17	4	0	1.06
Fort Walla Walla	68.87	87.41	68.03	74.77	99	52	47	0	6	0	39	0	18	0	0	27	4	3	0	.28
Fort Vanhill	52.64	71.74	57.74	60.70	89	42	47	0	0	0	0	0	31	10	6	21	10	8	0	1.08
Fort Dalles	61.70	83.03	67.06	70.59	95	53	42	3	12	13	5	3	6	27	19	28	3	2	0	.47
Fort Hoskins	58.87	74.61	56.39	63.29	93	50	43	6	6	0	1	1	24	17	26	18	13	7	0	1.18
Block House	55.97	69.03	58.32	61.10	87	50	37	5	4	1	6	1	22	28	26	18	13	6	0	1.68
Fort Steilacoom	53.54	71.38	56.87	60.59	89	47	42	18	12	1	0	3	7	6	46	28	3	1	0	.44
Fort Umpqua	57.22	64.61	56.32	59.38	72	52	20	0	7	0	0	0	29	2	55	14	17	4	0	1.13
Fort Vancouver	57.70	74.77	63.69	65.38	94	48	46	2	9	3	4	4	11	42	18	19	12	6	0	1.01
Camp Semiahmoo	58.19	71.16	60.58	63.31	81	53	28	3	17	12	8	6	31	15	1	23	8	2	0	.80
Camp Pickett	58.48	75.32	55.77	63.19	92	52	40	0	2	2	12	30	23	13	0	23	8	5	0	.36
Fort Bridger	58.90	77.00	55.58	63.73	85	47	38	25	5	1	1	0	0	13	31	19	12	3	0	.38
Camp Floyd	70.54	79.16	66.67	72.12	84	61	23	18	1	5	1	39	3	23	3	29	2	4	0	.18

MONTH OF SEPTEMBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow	
Fort Independence	55.23	66.46	56.56	59.48	78	42	36	1	10	5	3	0	2	28	9	21	9	7	0	3.73
Fort Adams	58.20	65.17	59.00	60.78	73	49	24	17	8	6	2	10	2	12	7	14	16	10	0	4.05
Fort Columbus	59.86	68.93	62.50	63.76	76	46	30	6	15	35	2	0	4	27	7	19	11	13	0	7.10
West Point	59.30	69.53	63.66	64.16	77	52	25	32	7	5	7	24	6	2	7	24	6	6	0	5.20
Fort Hamilton	57.43	68.86	60.46	62.25	79	46	33	7	8	11	9	1	23	12	19	18	12	11	0	1.91
Alleghany Arsenal	57.90	69.06	61.30	62.75	78	48	30	11	24	0	5	11	25	2	10	14	16	13	0	2.74
Carlisle Barracks	59.96	69.40	62.33	63.89	78	52	26	0	0	4	12	2	22	15	4	18	12	12	0	9.55
Fort Monroe	71.43	75.90	71.46	73.09	83	62	21	0	53	16	8	1	27	2	3	20	10	3	0	3.00
Fort Moultrie	73.36	80.09	75.83	76.42	88	68	20	13	14	11	12	15	11	2	7	21	6	9	0	1.36
Key West Barracks	82.73	86.70	82.93	84.12	89	80	9	10	29	22	0	14	0	3	2	25	5	6	0	1.66
Barrancas Barracks	73.16	85.20	76.10	78.15	90	63	27	28	17	8	13	9	7	0	12	25	5	3	0	5.36
Mount Vernon Arsenal	71.33	84.56	73.13	76.34	92	61	31	21	23	22	9	5	0	6	4	25	5	3	0	6.48
New Orleans	77.66	82.83	80.80	80.43	89	72	17	7	15	29	13	0	4	22	8	24	6	7	0	1.19
Baton Rouge	72.03	86.56	76.83	78.47	93	61	32	10	19	25	12	7	0	7	7	19	11	4	0	2.35
Fort Smith	65.53	79.43	71.90	72.35	89	55	34	....	....	....	....	....	....	....	....	16	14	7	0	5.70
Jefferson Barracks	62.13	73.83	66.53	67.49	84	49	35	6	3	1	21	7	11	1	31	1	26	11	0	3.26
Newport Barracks	61.16	71.06	66.53	66.23	80	52	28	7	8	10	6	25	10	17	6	12	18	7	0	1.95
Fort Mackinac	51.90	58.50	51.60	54.00	73	36	37	5	9	8	17	13	5	23	10	14	16	11	0	3.43
Fort Ripley	50.43	65.80	55.53	57.25	76	35	41	9	3	5	10	29	11	12	8	17	13	7	0	3.87
Fort Ridgely	55.23	69.73	56.63	60.53	83	40	43	0	11	32	10	0	15	13	9	13	17	12	0	2.54
Fort Randall	55.30	72.06	59.66	62.34	90	36	54	11	1	10	7	18	6	12	10	19	11	3	0	1.38
Fort Leavenworth	60.86	73.13	64.80	66.25	87	46	41	2	12	6	22	11	6	5	22	13	17	11	0	5.47
Fort Riley	63.46	78.06	67.93	69.81	93	50	43	7	17	6	19	13	14	5	9	14	16	3	0	1.17
Fort Kearny	52.80	71.43	57.93	60.72	89	39	50	11	15	4	21	10	7	5	11	10	20	3	0	2.03
Fort Laramie	50.23	70.36	49.63	56.74	91	38	53	4	17	2	15	1	22	18	11	15	15	5	0	.49
Fort Arbuckle	66.76	77.60	71.26	71.87	91	51	40	4	17	6	21	22	10	2	8	17	13	14	0	8.92
Fort Chadbourne	66.50	80.77	70.50	72.59	90	53	37	16	2	5	54	22	1	2	8	5	25	17	0	7.24
San Antonio	77.33	90.43	72.33	80.03	101	68	33	4	8	16	31	22	0	4	5	12	18	10	0	17.60
Camp Stockton	64.83	85.13	69.96	73.33	97	52	45	1	7	0	29	6	16	2	8	9	14	15	0	(†)
Camp Hudson	72.50	87.63	77.73	79.35	100	60	40	7	1	2	55	4	1	0	6	11	19	10	0	1.73
Fort Lancaster	69.96	86.10	73.36	76.47	97	55	42	6	3	1	50	1	1	4	16	18	12	9	0	10.85
Camp Verde	70.53	84.93	73.06	76.18	97	53	44	11	5	2	51	7	4	3	7	12	18	6	0	6.01
Camp Colorado	70.47	78.63	72.70	73.93	86	56	30	0	1	15	25	1	0	0	6	5	25	15	0	8.60
Camp Cooper	71.10	80.56	74.96	75.50	93	59	34	34	9	13	14	12	0	3	5	13	17	8	0	.79
Fort Inge	72.26	89.20	77.90	80.77	100	61	39	8	11	28	21	2	0	0	9	14	16	12	0	5.11
Fort Clark	72.03	87.66	78.16	79.28	97	63	34	0	13	1	62	0	0	0	0	6	24	9	0	9.20
Fort Davis	64.63	76.13	64.43	69.06	84	55	29	2	12	10	10	9	20	22	3	8	22	17	0	8.49
Fort Quitman	67.00	81.76	71.10	73.28	89	54	35	0	0	2	67	14	2	3	0	5	25	5	0	1.75
Fort Bliss	69.13	83.80	73.43	75.45	91	64	27	16	2	52	3	12	1	2	2	20	10	3	0	1.11
Fort Buchanan	62.83	81.33	67.20	70.44	89	55	34	3	15	12	16	12	27	4	1	13	17	4	0	.74
Fort Fillmore	68.83	84.53	71.40	74.91	90	62	28	0	0	23	8	7	13	39	0	21	9	4	0	1.59
Fort Craig	64.30	72.87	66.86	68.01	78	57	21	22	7	1	16	12	2	9	21	25	5	11	0	2.39
Fort Stanton	54.73	68.30	60.01	61.01	77	45	32	0	4	24	1	0	4	29	17	7	23	9	0	3.77
Albuquerque	59.53	89.96	51.23	63.91	98	42	56	39	1	18	0	7	0	25	0	16	14	3	0	3.10
Fort Marcy	51.13	65.06	57.00	57.90	71	39	32	7	6	2	11	1	25	11	27	20	10	13	0	1.98
Fort Union	48.93	66.13	53.60	56.21	88	34	54	5	9	4	17	15	18	5	19	23	7	4	1	3.55

MONTH OF SEPTEMBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cl'dy.	Rain.	Snow	
Cantonment Burgwin	47.60	67.80	53.06	56.15	89	29	51	13	7	0	10	25	15	14	5	5	25	15	0	1.93
Fort Garland	46.36	61.16	47.70	51.96	68	32	36	0	11	14	12	25	18	9	0	26	14	5	1	.68
Fort Defiance	48.90	67.33	56.10	57.44	75	39	15	7	2	2	7	7	14	46	5	20	10	10	0	1.79
Fort Mojave	70.46	97.33	85.20	84.66	104	62	42	13	2	9	12	28	21	2	2	29	1	0	0	0
Fort Yuma	76.76	95.46	84.53	85.58	102	69	33	1	12	21	10	0	13	26	7	27	3	0	0	0
San Diego	63.73	73.26	66.36	67.78	84	58	26	0	15	15	10	1	27	13	9	15	15	0	0	0
Fort Tejon	59.60	47.76	65.03	66.79	89	50	39	7	22	3	6	19	11	18	1	27	3	3	0	.....
Fort Crook	47.26	72.73	66.01	62.00	90	35	55	0	0	9	1	0	8	39	1	23	7	3	0	1.80
San Francisco	56.76	63.10	55.00	58.29	81	51	30	0	0	0	0	0	4	86	0	16	14	1	0	.02
Fort Ter waw	55.46	65.56	55.03	58.68	74	48	26	0	0	8	7	0	18	34	23	17	13	6	0	6.61
Benicia Barracks	57.33	73.66	62.23	64.41	84	52	32	0	4	0	0	6	27	22	31	25	5	0	0	0
Fort Humboldt	53.63	61.40	55.56	56.86	68	46	22	14	0	1	1	1	15	4	20	14	16	6	0	1.94
Fort Vancouver	55.00	69.10	58.56	60.88	90	45	45	4	12	14	1	6	12	19	22	19	11	14	0	4.29
Fort Cascades	55.00	65.86	58.10	59 65	87	46	41	13	4	0	0	31	32	1	6	9	21	15	0	7.73
Fort Walla-Walla	60.33	78.10	58.83	65.85	98	46	52	0	2	0	30	0	48	2	2	18	12	11	0	3.33
Fort Yamhill	51.16	66.06	55.23	57.48	89	39	50	0	0	2	3	2	27	16	18	14	16	14	0	5.75
Fort Hoskins	52.50	67.43	53.00	57.63	93	44	49	1	10	0	3	2	20	19	22	11	19	15	0	7.08
Block House	53 96	64.53	53.03	57.17	76	45	31	7	5	4	11	8	16	20	19	10	20	14	0	13.80
Fort Steilacoom	50.96	67.96	53.76	51.56	83	40	43	1	22	11	1	3	19	10	23	13	17	7	0	4.09
Fort Umpqua	55 16	62.73	56.06	57.98	70	50	20	0	12	0	0	0	31	5	41	11	19	14	0	6.30
Fort Dalles	57.40	72.20	60.46	63.35	86	46	40	1	11	7	4	1	8	31	22	19	11	12	0	5.77
Camp Semiahmoo	55.26	65.66	57.00	59.27	79	47	32	7	30	8	6	10	22	6	1	16	14	10	0	3.91
Camp Pickett	53.76	67.86	54.10	58.24	81	48	33	0	2	5	28	20	22	0	1	16	14	9	0	1.59
Fort Bridger	42.26	61.70	43.66	49.20	76	32	44	20	7	3	0	0	1	11	41	12	18	18	1	1.39
Camp Floyd	55.23	65.43	54.53	58.39	73	38	35	23	2	4	2	26	3	27	3	25	5	11	0	1.72

* Twenty three days only. † No record.

MONTH OF OCTOBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cldy.	Rain.	Snow.	
Fort Independence	44.16	54.51	44.77	47.48	80	28	52	9	8	2	2	4	35	23	9	26	5	5	0	2.35
Fort Adams	46.38	52.96	48.69	49.14	67	33	34	7	6	1	6	3	34	25	10	19	12	7	1	2.74
Fort Columbus	45.84	55.96	49.58	50.46	73	31	42	6	14	24	2	0	0	13	31	20	11	6	2	1.30
West Point	49.38	59.16	53.35	53.96	74	36	38	20	2	1	1	14	11	8	15	27	4	4	1	1.55
Fort Hamilton	45.38	55.00	49.06	49.81	73	49	24	14	4	0	2	1	12	14	9	19	12	5	2	.89
Carlisle Barracks	46.30	57.32	46.00	49.87	78	28	50	6	10	3	2	2	21	11	14	21	10	5	2	.90
Fort Monroe	56.64	63.26	58.90	59.60	76	40	36	1	18	3	13	2	29	3	31	22	9	2	0	2.05
Fort Moultrie	60.08	72.07	65.09	66.00	81	39	42	19	20	11	3	6	5	9	19	25	6	5	0	.28
Key West Barracks	79.00	82.29	79.93	80.40	86	72	14	38	31	9	1	3	1	3	4	18	13	10	2	6.54
Barrancas Barracks	61.35	75.06	64.83	67.08	84	38	46	42	15	15	7	1	2	1	7	21	7	7	0	7.42
Mount Vernon Arsenal	58.00	74.90	62.80	65.23	84	35	49	40	20	20	9	0	0	0	4	23	8	6	0	2.41
New Orleans	67.74	73.48	71.00	70.74	82	59	23	40	19	11	6	2	6	4	8	23	8	3	0	2.17
Baton Rouge	69.35	75.37	69.41	67.00	86	40	46	37	23	20	7	4	0	0	2	15	16	4	0	.95
Fort Smith	57.24	74.13	65.26	65.54	87	32	55	....	....	....	....	....	....	....	....	28	2	2	0	1.35
Jefferson Barracks	48.67	66.06	53.00	55.91	83	27	56	10	4	0	2	6	9	19	26	17	14	4	0	1.01
Newport Barracks	45.41	59.00	53.52	52.64	75	30	45	15	9	1	0	20	8	22	9	11	20	7	0	2.00
Fort Mackinac	39.87	45.00	40.32	41.73	69	26	43	15	10	6	4	6	20	18	12	12	19	5	0	1.97
Fort Ripley	35.81	50.35	36.71	40.95	80	17	63	18	10	4	9	14	4	21	13	14	17	11	5	.35
Fort Ridgely	38.93	58.80	43.09	46.93	84	25	59	3	7	28	6	0	22	15	12	15	16	1	2	.46
Fort Leavenworth	46.61	62.39	52.81	53.93	81	26	55	7	9	8	18	11	7	10	18	23	8	4	0	.52
Fort Randall	41.58	61.25	47.09	49.97	83	18	65	21	0	9	4	17	14	13	15	24	7	1	1	.18
Fort Riley	43.32	54.67	46.33	48.10	72	31	41	8	21	3	2	4	28	17	9	15	16	5	3	1.39
Fort Kearny	39.32	63.87	46.22	49.80	87	14	73	18	5	3	8	20	8	6	11	15	16	3	1	.38
Fort Laramie	43.03	72.48	47.73	54.41	87	23	64	10	21	5	7	2	13	17	17	28	3	0	2	.22
Fort Arbuckle	54.70	72.41	60.77	62.73	83	30	53	7	4	7	21	28	8	6	12	28	3	3	0	.75
Fort Chadbourne	52.55	75.06	60.97	62.86	88	37	51	9	9	3	36	25	3	2	6	15	16	5	0	1.15
San Antonio	68.61	85.77	65.29	73.23	93	50	43	15	15	14	16	15	4	3	11	20	11	5	0	2.80
Camp Stockton	52.89	76.55	60.32	63.22	95	34	61	9	17	7	39	5	11	0	11	13	18	7	1	1.88
Camp Hudson	60.29	78.47	67.25	68.66	93	52	41	12	1	7	45	9	0	0	3	17	13	6	0	2.87
Fort Lancaster	56.29	75.70	65.51	65.83	90	36	54	9	5	6	54	3	2	3	11	22	9	5	0	3.28
Camp Verde	57.19	76.16	56.77	63.37	92	37	55	10	23	8	28	7	9	0	8	19	12	5	0	1.88
Camp Colorado	57.32	70.82	63.74	63.96	84	41	43	0	6	13	20	1	1	7	13	16	15	7	0	1.13
Camp Cooper	58.18	75.48	62.67	65.44	88	39	49	24	8	5	18	8	23	2	8	25	6	2	0	.01
Fort Inge	62.71	77.61	66.26	68.86	91	48	43	21	16	23	6	2	0	1	10	19	12	4	0	3.15
Fort Clark	62.83	77.29	68.93	69.68	86	48	38	0	37	3	40	0	0	0	0	9	22	4	0	2.75
Fort Davis	53.64	68.19	58.32	60.05	82	35	47	9	11	5	8	12	29	12	7	17	14	8	1	1.94
Fort Quitman	55.77	72.29	59.93	62.66	83	39	44	2	7	18	39	9	3	12	3	15	16	5	0	.32
Fort Bliss	57.40	78.74	63.80	66.64	89	37	52	23	9	54	0	0	3	0	3	20	11	1	1	.70
Fort Buchanan	50.77	74.41	59.16	61.44	84	41	43	5	18	20	10	9	18	10	3	16	15	3	0	2.33
Fort Fillmore	57.29	78.35	62.96	66.20	89	45	44	7	14	24	1	0	5	29	34	20	11	1	0	.39
Fort Craig	51.97	64.13	58.42	58.16	75	36	39	20	4	2	14	22	8	12	11	26	5	1	1	.50
Fort Stanton	41.03	61.09	51.03	51.05	68	32	36	0	1	30	4	1	3	37	15	14	17	2	2	2.60
Albuquerque	44.90	66.77	46.00	52.55	92	25	67	36	3	13	7	10	3	15	6	25	6	0	0	0
Fort Marcy	51.93	69.64	50.38	50.65	67	31	36	19	6	7	9	5	21	12	23	24	7	3	1	.55
Fort Union	38.45	60.54	45.45	48.14	70	29	41	10	6	0	19	13	9	4	32	23	8	2	0	1.10
Cantonment Burgwin	36.58	67.48	47.45	50.50	77	25	52	6	0	1	3	25	30	16	12	24	7	4	1	.55

MONTH OF OCTOBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Average in Inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW	Fair.	Cldy.	Rain.	Snow.	
Fort Garland	33.29	55.90	39.12	42.77	63	20	13	0	8	50	12	10	9	15	0	27	1	2	1	.75
Fort Defiance	36.48	63.22	47.26	48.98	70	27	43	3	2	7	15	5	4	51	6	22	9	4	0	.30
Fort Yuma	68.70	88.87	77.60	78.19	97	62	35	0	6	12	6	8	11	43	7	22	9	2	0	.42
Fort Mojave	61.25	89.03	76.16	75.49	98	52	46	13	7	5	24	20	14	3	7	28	3	2	0	.....
San Diego	69.32	72.48	64.68	65.80	103	54	49	1	13	11	18	3	25	13	9	12	19	3	0	.18
Fort Tejon	51.26	73.19	58.24	61.89	84	46	38	17	5	3	1	41	17	1	5	23	8	2	0	.07
Fort Crook	35.51	71.22	52.87	53.20	80	25	55	0	0	7	0	0	9	43	2	27	4	0	0	0
San Francisco	55.45	63.67	53.67	57.42	88	52	36	0	0	0	0	0	8	45	0	17	14	1	0	.02
Fort Ter Waw	54.00	64.19	53 09	57.09	80	44	36	0	0	10	8	0	23	32	20	23	8	4	0	4.03
Benicia Barracks	56.10	72.42	62.00	63.84	87	49	38	0	2	0	8	6	32	12	32	28	3	0	0	0
Fort Humboldt	51.51	59.41	48.48	53.13	71	38	33	3	4	0	3	0	10	5	30	15	16	3	0	1.17
Fort Vancouver	47.45	61.48	51.87	53.60	75	37	38	11	15	8	8	5	15	13	18	14	17	11	0	2.22
Fort Cascades	49.54	63.77	53.12	55.48	74	41	33	4	31	1	0	0	30	7	0	13	18	9	0	4.38
Fort Walla Walla	49.41	67.96	52.09	61.48	86	36	50	0	8	0	17	1	51	2	11	24	6	5	0	.60
Fort Yamhill	45.41	61.61	50.48	52.50	74	34	40	0	7	2	17	1	11	2	11	18	13	9	0	3.10
Fort Dalles	44.29	64.55	50.35	53.19	82	33	49	1	12	0	7	8	28	19	11	23	8	6	0	2.14
Fort Hoskins	45.00	67.74	48.19	53.64	73	33	40	12	14	2	3	3	5	9	18	18	13	7	0	3.49
Block House	46.45	65.03	46.68	52.72	74	34	40	14	11	4	17	6	11	9	21	20	11	12	0	6.20
Fort Steilacoom	43.28	63.06	48.32	51.58	74	33	41	0	25	10	1	3	30	22	2	8	23	14	0	4.63
Fort Umpqua	53.19	69.67	52.03	53.29	77	42	35	0	15	2	0	0	36	3	37	20	11	10	0	2.90
Camp Semialmoo	47.41	58.54	49.80	51.93	68	32	36	14	30	5	9	12	15	7	1	20	11	10	0	7.88
Camp Pickett	35.51	55.90	48.12	50.18	66	42	24	0	8	2	20	12	12	9	5	16	15	12	0	3.44
Fort Bridger	35.38	64.61	39.54	46.51	74	20	54	12	6	2	0	0	0	22	36	25	6	1	0	.15
Camp Floyd	37.52	66.22	48 45	50.66	76	30	46	30	0	11	0	17	0	28	4	31	0	0	0	0

MONTH OF NOVEMBER, 1859.

STATIONS.	THERMOMETER						WINDS.									WEATHER		RAIN & SNOW		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	
Fort Independence	46.40	47.10	39.03	41.67	63	29	34	11	13	2	4	0	29	11	15	24	6	5	2	2.45
Fort Columbus	42.97	50.13	44.23	45.40	46	29	17	1	7	2	15	7	1	12	48	46	10	9	1	3.65
West Point	52.97	52.90	47.26	49.32	66	38	28	25	5	1	0	13	13	15	17	23	7	6	1	2.70
Fort Hamilton	40.33	49.73	43.56	44.54	62	29	33	7	3	0	26	3	14	7	21	20	10	7	3	2.98
Allegheny Arsenal	35.66	48.20	41.23	42.03	60	25	35	7	2	3	4	9	20	13	4	15	15	7	3	1.69
Carlisle Barracks	36.80	49.80	39.66	42.08	70	21	49	7	2	4	11	4	14	43	5	20	10	5	3	1.45
Fort Monroe	52.96	58.33	54.53	55.27	70	32	38	4	32	6	2	7	28	2	9	17	13	4	6	2.69
Fort Moultrie	55.40	64.63	59.33	59.78	74	42	32	18	24	4	1	7	12	2	15	22	8	4	6	4.58
Key West Barracks	71.36	75.36	71.86	72.86	82	64	18	2	22	2	4	5	6	4	4	22	8	5	6	5.25
Barrancas Barracks	55.63	69.10	59.86	61.54	77	38	39	2	1	0	4	11	2	6	1	23	7	3	0	.92
Mount Vernon Arsenal	58.93	72.20	59.10	60.08	81	35	46	23	6	13	14	1	8	6	7	21	9	4	2	1.30
New Orleans	62.13	69.13	65.76	65.67	79	44	35	7	25	2	14	6	7	7	7	22	8	3	3	2.79
Fort Smith	47.06	65.05	55.13	55.75	80	20	61	.	.	.	.	.	.	.	.	20	10	7	2	4.40
Fort Washita	50.93	66.73	59.16	58.94	84	18	66	3	1	1	0	23	0	1	0	16	14	2	2	1.38
Jefferson Barracks	42.60	56.03	49.56	49.39	78	15	63	3	2	7	26	8	0	4	26	7	23	0	2	1.63
Newport Barracks	40.60	52.23	46.80	46.54	70	26	44	2	23	14	0	30	16	3	2	6	24	7	2	1.67
Fort Mackinac	32.83	36.46	34.00	34.43	50	18	32	1	0	0	14	0	8	21	2	11	19	1	3	2.42
Fort Ripley	32.40	33.60	26.63	27.73	51	-2	53	4	20	0	7	16	3	17	14	10	20	1	7	2.10
Fort Ridgely	26.20	39.00	28.40	31.26	70	1	65	2	1	2	0	1	4	20	0	14	16	1	8	1.37
Fort Snelling	28.23	50.66	42.93	40.61	75	1	67	1	2	0	6	18	8	8	1	14	15	1	2	.79
Fort Randall	27.10	40.66	39.23	35.66	68	2	66	1	1	6	25	10	2	2	27	15	15	2	5	.28
Fort Riley	42.00	52.03	43.80	45.71	79	8	71	20	18	0	2	21	8	7	11	21	8	3	6	.77
Fort Kearny	33.03	49.66	35.46	39.38	77	1	76	12	1	3	10	12	8	6	1	1	25	2	1	.21
Fort Laramie	30.16	42.07	31.06	34.43	79	-7	86	4	2	0	1	2	15	32	0	15	15	4	7	1.12
Fort Arbuckle	49.65	66.20	57.93	57.92	79	30	49	3	1	0	27	40	9	7	3	23	7	2	0	1.48
Fort Gibson	46.76	71.80	55.80	58.12	77	11	67	6	1	1	0	35	4	7	3	11	9	1	0	.16
San Antonio	61.50	76.43	61.43	66.39	86	27	59	20	2	1	0	27	3	1	4	20	10	0	0	0
Camp Stanton	49.43	76.60	55.30	60.44	80	24	56	2	2	0	0	18	0	12	4	27	3	3	0	0
Camp Hudson	53.00	72.23	60.13	61.89	80	28	52	3	0	0	0	1	2	0	1	17	13	2	0	.16
Fort Lancaster	48.50	70.40	57.16	58.67	80	34	46	2	1	1	0	3	0	0	0	24	6	0	0	0
Camp Verde	50.00	72.70	59.01	62.57	85	30	55	0	0	0	0	41	1	0	0	19	11	0	0	0
Camp Colorado	50.73	67.13	59.16	59.00	78	30	48	0	2	0	17	7	1	1	1	15	15	0	0	0
Fort Inge	57.03	74.63	59.76	63.74	83	35	48	1	0	0	0	2	9	0	0	20	10	1	1	.06
Fort Clark	58.50	73.93	61.03	63.86	83	28	55	0	0	0	0	1	0	0	0	6	24	0	0	0
Fort Duncan	57.20	66.06	53.66	55.80	82	21	61	0	7	0	0	0	27	0	0	22	8	0	0	0
Fort Quitman	39.86	66.70	47.40	51.31	78	16	62	0	0	0	16	1	0	0	12	17	13	1	0	.10
Fort Bliss	48.03	68.76	55.20	57.33	77	22	55	0	0	0	0	5	0	0	17	0	7	7	0	.95
Fort Buchanan	40.30	61.76	46.70	49.59	71	32	39	0	0	0	14	11	25	0	0	17	13	0	0	2.84
Fort Fillmore	43.00	48.58	39.67	40.77	72	30	42	0	0	0	0	0	0	0	0	17	13	0	0	1.16
Fort Craig	41.13	55.70	49.43	48.75	62	28	34	4	2	0	11	36	9	10	0	27	3	0	0	.20
Fort Stanton	36.86	55.76	42.16	44.89	67	15	52	0	0	0	0	0	0	0	0	15	15	0	0	.25
Valverde	20.36	49.93	35.60	35.27	58	8	50	0	0	0	0	0	0	27	0	0	6	0	0	0
Fort Marcy	31.30	46.73	38.10	38.10	57	12	45	2	0	0	5	0	10	0	0	0	7	0	0	.23
Fort Union	34.06	52.70	39.73	42.16	65	0	60	0	0	0	3	0	11	0	0	23	7	0	0	0
Cantonment Burgwin	28.83	54.03	33.93	38.93	77	0	77	0	2	0	5	19	29	0	0	21	9	0	0	.50
Fort Garland	24.73	44.53	28.86	32.71	56	0	56	0	0	0	8	15	18	0	0	0	2	1	0	.20

MONTH OF NOVEMBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER.		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cl'dy.	Rain.	Snow.	
Fort Defiance	31.50	50.00	37.90	39.80	64	9	55	7	1	3	4	23	17	31	4	15	13	2	2	.22
Fort Yuma	55.76	73.40	63.40	64.18	85	46	39	4	8	6	4	5	14	40	9	17	13	1	0	1.83
Fort Mojave	51.00	70.66	59.63	60.43	84	42	42	10	9	2	59	7	5	4	3	20	10	5	0	1.50
San Diego	53.80	67.96	60.96	60.90	78	43	35	2	13	9	27	2	16	11	10	12	18	6	0	1.51
Fort Tejon	47.83	53.13	48.80	49.92	73	39	34	1	15	4	1	17	9	35	8	13	17	3	1	8.58
Fort Crook	33.56	45.30	38.60	39.15	71	10	61	0	3	2	1	0	14	23	11	11	19	8	5	3.85
San Francisco	51.26	57.50	51.70	53.48	64	43	21	5	0	0	6	0	20	48	11	11	19	18	0	5.45
Fort Ter-Waw	46.03	54.46	46.96	49.15	65	31	34	0	5	16	10	0	9	29	21	11	19	16	0	15.35
Benicia Barracks	52.16	58.56	52.83	54.51	69	43	26	2	0	22	0	10	5	51	0	13	17	10	0	4.10
Fort Humboldt	46.13	53.03	48.33	49.16	62	33	29	2	3	3	15	4	16	1	13	7	23	17	0	6.57
Fort Vancouver	35.76	44.33	38.66	39.58	57	21	36	13	24	15	7	5	9	6	11	7	23	15	1	4.15
Camp Ives	51.50	71.86	55.03	59.46	81	25	56	9	0	0	31	0	30	0	17	16	14	0	0	0
Fort Cascades	36.70	43.83	38.40	39.61	70	21	49	11	27	12	0	0	27	12	1	5	25	15	3	7.20
Fort Walla Walla	31.23	39.43	33.03	34.56	54	8	46	0	11	0	26	0	38	0	15	23	7	4	3	2.40
Fort Yamhill	34.60	43.10	36.83	38.17	54	22	32	0	0	9	31	1	12	3	9	8	22	14	3	8.02
Fort Dalles	30.26	42.03	32.86	35.05	56	4	52	1	10	1	8	3	25	28	10	15	15	12	3	4.25
Fort Hoskins	34.80	48.30	38.33	40.46	61	21	40	15	6	1	2	5	17	19	20	8	22	17	4	9.70
Block House	37.40	50.56	39.33	42.43	68	28	40	12	20	9	9	4	19	10	7	12	18	18	0	16.20
Fort Steilacoom	31.70	46.43	34.03	37.39	60	17	43	3	17	1	10	17	17	7	11	8	22	14	3	3.37
Fort Umpqua	43.76	59.10	44.46	46.10	60	35	25	0	28	2	1	0	34	8	17	13	17	20	0	8.55
Camp Semiahmoo	34.23	43.86	38.40	38.83	57	16	41	19	27	16	12	4	11	1	0	17	13	9	4	2.57
Camp Pickett	36.76	42.86	38.50	39.36	52	18	34	17	16	2	13	20	6	1	7	15	15	15	3	1.34
Fort Bridger	25.40	39.20	26.60	30.22	68	— 2	70	11	5	0	0	0	0	25	42	6	24	2	9	1.63
Camp Floyd	30.03	41.20	34.60	36.27	68	8	60	25	2	4	1	18	4	31	5	16	14	7	11	3.11

MONTH OF DECEMBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.	
Fort Independence	24.29	29.77	23.96	25.99	59	— 3	62	15	24	6	1	3	16	18	21	25	6	3	5	5.97
Fort Columbus	28.12	32.83	28.93	29.96	64	3	61	6	19	3	6	1	9	6	15	16	15	8	4	4.76
West Point	28.22	35.83	30.61	31.55	67	— 9	76	12	3	0	3	10	8	7	29	22	9	6	6	1.40
Fort Hamilton	27.19	31.90	27.58	28.89	58	2	56	9	2	7	14	6	13	9	32	15	16	8	3	2.34
Allegheny Arsenal	26.06	33.64	27.90	29.20	64	7	57	8	18	1	4	13	33	7	9	9	22	9	9	4.77
Fort Monroe	42.42	46.51	43.41	44.11	68	25	43	8	23	3	2	4	25	6	21	15	16	7	2	2.50
Fort Moultrie	48.15	52.26	52.20	52.97	74	28	46	12	9	5	6	4	22	4	12	22	9	7	0	2.74
Key West Barracks	68.58	72.41	68.96	69.98	80	59	21	25	22	6	2	6	1	1	9	26	5	5	0	.86
Barrancas Barracks	45.51	58.06	50.19	51.25	76	25	51	12	6	6	17	6	0	2	13	18	13	9	0	5.24
Mount Vernon Arsenal	41.61	46.58	46.96	48.39	70	14	65	15	8	3	7	13	2	5	10	14	17	9	0	2.91
New Orleans	50.71	57.03	53.19	53.65	77	32	45	16	12	20	5	6	3	6	25	19	12	8	0	5.09
Fort Smith	25.06	37.93	30.20	31.06	65	1	64	.....	.....	.....	.....	.....	.....	.....	.....	18	13	2	2	2.25
Fort Washita	28.51	38.96	33.42	33.53	70	2	68	14	2	2	..	6	2	6	24	16	15	5	2	.55
Jefferson Barracks	20.48	29.87	25.64	25.33	47	— 5	52	6	9	2	26	5	5	2	5	15	16	2	6	2.55
Newport Barracks	24.87	30.87	25.90	27.54	64	1	63	10	3	1	3	20	14	20	10	8	23	6	10	6.95
Fort Mackinac	14.23	18.54	15.22	16.23	35	— 9	44	14	2	6	5	1	9	15	24	9	22	9	14	.49
Fort Ripley	— 4.55	6.97	.48	.52	35	—37	73	25	12	1	0	27	2	12	11	16	15	6	7	.52
Fort Ridgely	3.10	10.77	5.19	6.35	40	—18	54	1	6	6	12	2	5	39	18	16	15	6	12	.83
Fort Leavenworth	13.35	24.74	18.53	18.87	53	—10	63	9	10	6	5	5	11	14	25	20	11	0	8	.03
Fort Randall	4.96	20.32	9.12	11.47	49	1	48	12	2	9	15	4	3	8	40	19	12	6	4	.14
Fort Riley	13.29	29.45	21.25	21.33	74	— 8	79	49	3	0	2	5	13	29	1	27	4	0	2	.....
Fort Kearny	10.90	28.32	17.30	18.84	57	—21	78	21	8	2	1	11	12	13	21	10	21	6	8	.10
Fort Laramie	14.00	31.35	20.60	21.98	51	—22	73	5	7	7	5	2	6	50	11	14	17	0	8	.20
Fort Arbuckle	25.19	40.38	31.51	32.36	67	0	67	27	3	2	4	15	18	2	21	25	6	3	3	1.28
Fort Chadbourne	26.16	49.13	32.32	35.87	73	5	68	16	3	0	11	29	6	13	8	14	17	6	7	1.18
San Antonio	40.10	56.77	42.00	46.29	83	17	72	6	1	3	8	17	5	1	1	24	7	4	1	.23
Camp Stockton	27.25	56.35	33.87	39.04	78	— 9	87	1	3	2	12	12	30	10	23	27	3	0	1	0
Camp Hudson	34.67	56.09	41.03	43.93	76	15	61	17	0	0	30	3	2	0	26	21	10	3	2	.32
Fort Lancaster	29.48	49.48	37.83	38.93	71	10	61	3	1	1	30	4	1	6	24	24	7	1	3	.71
Camp Verde	36.25	53.80	38.35	42.80	75	12	63	21	5	2	12	13	9	0	31	21	10	1	4	1.50
Camp Colorado	29.53	43.75	31.37	35.88	65	9	56	0	0	1	14	1	11	13	21	13	18	3	5	1.33
Fort Inge	54.55	56.45	42.09	44.36	79	20	59	3	15	14	2	7	5	21	13	21	10	2	0	.55
Fort Clark	38.48	57.84	40.29	41.87	78	19	59	0	31	9	19	0	0	0	31	12	19	2	0	.59
Fort Davis	39.93	50.58	38.12	39.87	68	17	51	8	19	8	3	6	24	26	8	20	11	1	3	.10
Fort Quitman	25.77	50.16	32.64	35.52	65	9	56	29	13	4	9	0	2	22	23	17	14	1	2	.13
Fort Bliss	31.22	52.51	40.74	41.49	64	19	45	41	4	20	4	4	1	6	13	23	8	0	0	0
Fort Buchanan	29.91	45.12	34.51	37.51	57	20	37	8	28	9	7	9	25	5	2	19	12	1	2	.40
Fort Fillmore	27.29	41.35	32.90	33.89	67	16	51	19	22	21	0	0	0	19	12	20	11	0	0	0
Fort Craig	26.10	37.55	31.55	31.73	54	8	46	27	2	0	7	16	11	10	20	22	9	2	1	0	.97
Fort Stanton	23.58	37.41	28.00	29.66	54	7	47	4	3	7	2	0	0	65	10	17	14	0	3	1.65
Albuquerque	9.89	25.65	16.23	17.56	48	0	48	54	2	12	0	18	0	6	1	22	9	0	0	0
Fort Marcy	15.38	33.09	22.11	23.54	45	— 4	49	8	3	0	3	2	21	13	47	25	6	0	5	.07
Fort Union	17.51	37.35	21.80	25.52	56	0	56	21	13	5	8	3	8	2	33	27	4	0	1	25
Cantonment Burgwin	11.77	38.45	20.06	23.42	53	12	41	14	2	0	3	14	33	14	9	21	9	0	9	.48
Fort Garland	3.99	28.54	12.77	15.17	40	— 12	52	0	19	21	10	17	16	9	1	28	3	6	2	.20
Fort Defiance	14.92	34.61	22.71	23.08	47	—16	63	11	0	2	2	11	7	43	12	18	13	0	3	.23

MONTH OF DECEMBER, 1859.

STATIONS.	THERMOMETER.							WINDS.								WEATHER		RAIN & SNOW.		
	MEAN TEMPERATURE.				RANGE.			DIRECTION, NO. OF OBSERVATIONS.								DAYS.		DAYS.		Amount in inches.
	7 A. M.	2 P. M.	9 P. M.	Mean.	Max.	Min.	Range	N.	NE.	E.	SE.	S.	SW	W.	NW	Fair.	Cldy	Rain.	Snow	
Fort Yuma	47.25	62.32	53.45	54.34	77	36	41	2	9	2	1	20	16	29	11	21	10	0	0	0
Fort Mojave	42.65	56.77	48.61	49.34	66	30	36	71	0	0	1	0	6	0	12	26	5	2	0	.29
San Diego	45.90	64.64	55.26	55.26	76	36	40	0	19	11	16	0	19	19	9	18	13	4	0	2.20
Fort Tejon	41.16	47.03	41.90	43.36	58	29	29	2	0	2	1	13	5	24	16	22	9	2	1	.16
Fort Crook	19.77	33.35	26.67	26.58	44	6	38	0	0	0	1	0	4	0	27	19	12	1	1	1.00
San Francisco	44.93	54.93	46.12	48.66	62	38	24	18	20	0	3	1	5	42	4	21	10	5	0	1.10
Fort Ter-Waw	36.93	52.22	41.90	43.68	58	30	28	0	17	20	4	0	11	24	17	18	13	7	0	7.44
Benicia Barracks	43.13	52.66	45.70	47.16	58	33	25	3	11	59	3	4	2	11	0	20	11	4	0	1.08
Fort Humboldt	39.41	50.67	43.51	44.53	57	29	28	9	7	7	8	3	1	3	10	17	14	10	0	2.88
Fort Yamhill	30.93	39.25	34.00	34.72	54	7	47	0	0	13	51	2	11	1	0	16	15	12	2	1.86
Fort Umpqua	40.12	47.74	42.54	43.47	55	20	35	0	40	0	5	0	29	1	18	18	13	11	0	4.73
Fort Hoskins	29.45	46.03	32.84	36.10	56	8	48	18	18	2	4	3	19	2	18	14	17	11	0	4.11
Block House	35.42	45.55	40.03	40.33	59	25	34	10	20	6	11	2	17	11	12	16	15	9	0	7.00
Fort Dalles	21.87	30.16	23.61	25.21	49	— 3	52	2	35	0	11	2	17	12	11	10	21	2	11	3.66
Fort Walla-Walla	18.84	26.77	21.71	22.44	44	— 6	50	0	12	0	28	0	41	4	11	13	18	4	5	.72
Fort Steilacoom	32.00	40.84	34.12	35.65	61	10	51	3	18	4	14	15	24	12	2	5	26	10	1	3.42
Camp Semiahmoo	31.67	40.22	34.87	35.59	58	10	48	32	18	17	5	6	0	9	6	10	21	0	0	0
Fort Vancouver	27.29	35.70	31.00	31.33	45	10	35	5	18	48	12	0	2	4	4	12	19	11	1	2.40
Fort Cascades	28.29	33.15	29.45	30.34	46	10	36	0	55	27	0	0	10	0	1	4	27	6	4	4.13
Fort Bridger	7.45	22.96	9.51	13.30	40	—21	61	8	5	0	0	0	0	23	39	11	20	0	3	27
Camp Floyd	14.19	28.83	17.80	20.29	40	—22	62	21	2	11	2	15	2	29	11	18	13	0	12	.19

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb	Mar.	April.	May	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Fort Independence	42 20	71 0	50	31.32	23.05	33.96	44.08	56.17	66.00	76.64	69.78	64.14	1
Fort Hamilton	40 37	74 2	25	30.93	24.37	35.75	47.76	59.28	69.92	76.70	73.53	68.86	2
Fort Columbus	40 42	74 1	23	31.25	23.86	36.04	46.56	58.56	68.09	74.55	70.44	65.43	3
West Point	41 23	74 0	167	30.85	22.60	34.79	46.48	59.96	68.10	73.27	71.95	65.38	4
Fort Ontario	43 20	76 40	250	28.13	19.71	30.89	41.80	51.10	52.56	68.09	65.86	60.92	5
Alleghany Arsenal	40 32	80 2	704	32.27	21.71	35.41	51.88	59.66	66.06	74.19	70.13	66.66	6
Carlisle Barracks	40 12	77 14	500	30.38	22.94	36.27	50.95	59.58	66.90	75.90	72.61	68.08	7
Fort Delaware	39 35	75 34	10	34.93	27.95	39.31	51.84	60.95	69.19	77.80	73.94	68.33	8
Fort McHenry	39 17	76 35	36	36.61	28.92	39.46	57.73	64.77	71.23	78.05	75.89	69.87	9
Fort Monroe	37 0	76 18	8	43.48	34.03	44.00	59.43	65.72	74.79	82.39	79.44	75.49	10
Fort Moultrie	32 45	79 51	25	51.53	46.89	53.64	63.70	71.82	76.18	82.25	83.16	79.63	11
Fort Capron	27 30	80 20	30	63.90	62.24	64.91	74.33	78.17	81.31	.....	84.44	83.08	12
Fort Dallas	25 55	80 20	20	65.35	63.24	64.73	72.82	76.90	79.71	81.94	82.46	81.41	13
Fort Myers	26 38	82 0	50	63.75	61.87	66.40	73.55	77.40	80.93	80.23	82.40	81.33	14
Fort Deynaud	26 30	81 30	.....	.....	64.41	68.93	72.50	76.14	79.03	78.43	80.00	80.14	15
Key West Barracks	24 32	81 48	10	67.18	65.94	70.28	75.09	79.13	82.23	82.40	83.44	82.93	16
Fort Brooke	28 0	82 28	20	59.93	56.46	62.68	71.01	75.93	80.76	.....	80.95	80.42	17
Barrancas Barracks	30 18	87 27	20	56.43	50.14	57.51	68.75	76.50	78.65	81.25	82.13	80.78	18
Mount Vernon Arsenal	31 12	88 2	200?	53.19	48.39	57.85	72.34	78.48	78.98	78.84	79.78	78.35	19
New Orleans	29 57	90 0	10	.....	51.85	59.80	70.33	79.16	81.88	82.78	84.80	82.14	20
Baton Rouge	30 26	91 18	41	55.95	50.45	59.46	71.35	77.79	80.46	81.04	80.12	78.69	21
Fort Washita	34 14	96 38	645	44.19	42.82	51.17	68.41	76.38	77.45	82.74	81.10	79.07	22
Fort Smith	35 23	94 29	460	41.09	40.82	49.19	66.68	72.90	75.45	81.85	80.16	77.01	23
Fort Gibson	35 47	95 10	560	40.69	38.07	47.80	66.41	74.17	75.43	84.21	80.55	78.55	24
Jefferson Barracks	38 28	90 15	472	34.22	30.17	39.41	61.96	66.85	75.46	80.26	75.70	74.03	25
St. Louis Arsenal	38 40	90 5	450	30.90	26.19	37.16	60.10	65.56	73.02	79.27	73.92	72.33	26
Newport Barracks	39 5	84 29	500	34.14	24.46	47.50	57.83	65.19	68.06	78.41	76.79	73.27	27
Fort Mackinac	45 51	84 33	728	17.98	8.01	23.70	38.79	51.20	56.18	64.20	62.82	58.75	28
Fort Brady	46 30	84 43	600	9.45	5.21	.. ..	36.22	53.12	57.83	.....	60.02	59.55	29
Fort Snelling	44 53	93 10	820	17.09	12.62	25.30	49.86	61.29	66.15	73.31	66.65	61.18	30
Fort Ripley	46 19	94 19	1,130	8.42	8.22	23.69	46.16	56.70	62.90	68.74	63.15	56.60	31
Fort Ridgely	44 15	94 45	.....	12.46	11.49	27.05	51.48	61.00	65.64	70.99	67.38	62.16	32
Fort Leavenworth	39 21	94 44	896	28.13	38.23	52.26	60.24	64.61	69.78	77.12	74.32	72.54	33
Fort Riley	39 0	96 30	1,000?	29.46	29.41	38.72	63.40	71.08	73.75	81.64	74.45	75.46	34
Fort Kearny	40 38	98 57	2,360	23.55	35.69	32.86	54.39	60.89	69.44	76.12	75.28	.....	35
Fort Laramie	42 12	104 31	4,519	35.85	29.01	36.41	52.94	59.82	69.44	72.46	72.93	69.00	36
Fort Pierre	44 23	100 12	1,456	.....	.....	.....	.....	.....	.....	77.15	68.53	64.10	37
Fort Arbuckle	34 27	97 9	1,000?	41.94	39.86	49.09	67.43	75.39	77.61	85.67	81.94	79.23	38
Fort Belknap	33 8	98 48	1,600?	45.92	44.49	53.69	70.00	76.80	79.12	85.46	85.04	85.67	39
Fort Chadbourne	32 2	100 5	2,120	48.89	45.88	56.68	68.51	74.84	77.06	.....	80.20	79.17	40
Fort McKavett	30 55	100 5	2,060	46.74	44.51	53.66	67.05	73.61	73.84	77.07	77.51	76.82	41
Fort Merrill	28 17	98 0	150?	54.51	54.65	61.82	74.50	81.13	81.00	81.59	83.29	81.44	42
Corpus Christi	27 47	97 27	20	.....	.....	.....	.....	.....	.....	.....	83.81	82.41	43
Fort Brown	25 53	97 26	50	60.23	61.60	66.24	74.98	81.77	81.05	83.07	84.85	82.85	44
Ringgold Barracks	26 23	98 47	521	59.38	59.03	65.54	76.21	83.51	.....	82.15	82.23	79.83	45
Fort McIntosh	27 30	99 29	806	56.63	57.30	65.29	78.08	84.20	82.73	84.72	85.15	83.82	46
Fort Inge	29 10	99 47	845	52.21	50.63	61.22	74.48	.....	.....	.....	.....	.....	47
Fort Duncan	28 42	100 30	1,460	50.51	53.25	61.24	75.26	83.80	82.18	83.31	83.85	79.58	48
Fort Clark	29 17	100 25	1,000?	44.06	42.36	61.11	71.72	78.13	80.45	80.57	82.11	79.39	49
Fort Davis	30 26	103 37	4,700	49.13	50.89	56.76	66.63	74.76	77.28	75.46	76.42	73.35	50

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1855.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
1	53.10	41.35	31.91	44.73	70.14	52.89	22.12	47.47	98	— 5	103	Boston harbor, Massachusetts.
2	56.35	45.82	35.41	47.59	73.38	56.67	30.23	51.97	96	5	91	New York harbor, New York.
3	53.95	44.64	34.68	47.05	71.02	54.34	33.26	51.42	92	— 6	98	New York harbor, New York.
4	53.31	44.98	35.38	47.07	71.10	54.55	22.94	48.91	88	19	69	West Point, New York.
5	48.11	40.85	29.75	41.26	62.71	49.99	25.86	44.95	88	— 1	89	Oswego, New York.
6	48.52	44.27	31.52	49.01	70.12	53.15	28.50	50.19	92	6	86	Pittsburg, Pennsylvania.
7	.....	.....	.....	48.93	71.80	.....	.....	.....	96	15	81	Carlisle, Pennsylvania.
8	53.68	46.91	35.74	50.70	73.64	56.30	32.87	53.38	97	14	83	Near Newcastle, Delaware.
9	64.28	48 64	37.76	53.98	74.72	60.93	34.43	56.01	96	16	80	Near Baltimore, Maryland.
10	.....	53.99	46.18	56.38	68.84	.....	51.23	.....	97	31	66	Old Point Comfort, Virginia.
11	66.04	62.02	56.14	63.05	80.53	69.23	51.52	66.08	94	42	52	Charleston harbor, South Carolina.
12	74.31	.....	80.45	72.47	.....	.....	68.86	.....	93	45	48	Indian river, Florida.
13	76.45	76.23	71.48	71.48	81.37	71.36	66.69	72.72	88	52	36	Miami river, Florida.
14	74.52	74.70	68.24	72.11	81.18	76.85	64.62	73.69	95	45	50	Charlotte's harbor, Florida.
15	71.95	71.84	66.27	72.52	79.15	77.97	.....	.....	91	41	50	Caloosa Hatchee river, Florida.
16	79.24	78.30	74.51	74.83	82.69	80.15	69.21	76.72	89	60	29	Key West, Florida.
17	70.02	71.70	65.14	69.87	.....	74.04	60.51	.....	95	40	55	Tampa Bay, Florida.
18	65.10	66.14	55.39	67.58	80.67	70.67	53.98	68.22	93	24	69	Pensacola, Florida.
19	63.93	62.99	51.12	69.55	79.20	68.42	50.90	67.02	93	21	72	Mount Vernon, Alabama.
20	67.10	66.88	56.66	69.76	83.15	72.04	.....	.....	93	30	63	New Orleans, Louisiana.
21	63.25	63.92	51.57	69.53	80.54	68.62	52.65	67.83	94	18	76	Baton Rouge, Louisiana.
22	61.29	53.39	39.57	65.32	80.46	64.58	42.19	63.14	102	2	100	Near Washita river, Chickasaw Nation.
23	58.07	54.16	37.37	62.92	79.15	63.08	39.76	61.23	98	2	96	Arkansas river, Arkansas
24	58.57	49.22	31.02	62.79	80.06	62.11	36.59	60.39	101	— 8	109	Neosho river, Cherokee Nation.
25	54.14	46.38	.....	56.07	77.14	58.18	.....	.....	.....	.....	.....	Near St. Louis, Missouri.
26	52.34	45.07	29.56	54.27	75.42	56.58	28.88	53.79	96	7	89	St. Louis, Missouri.
27	54.11	48.05	33.47	56.84	74.42	58.44	30.69	55.10	94	0	94	Newport, Kentucky.
28	43.64	35.14	22.65	37.89	61.06	45.85	16.21	40.25	82	— 1	83	Island of Mackinac, Michigan.
29	41.74	33.93	19.60	.....	.....	45.07	11.42	.....	96	— 8	104	Sault Ste. Marie, Michigan.
30	46.48	33.71	9.54	45.48	68.70	47.12	13.08	43.59	96	—33	129	Mouth of St. Peter's river, Minnesota.
31	40.55	28.08	5.03	42.18	64.93	41.74	7.22	39.02	90	—39	129	Upper Mississippi river, Minnesota.
32	43.74	31.28	10.39	46.51	68.00	45.73	11.14	42.84	90	—24	114	St. Peter's river, Minnesota.
33	54.11	41.83	23.41	59.03	73.44	56.17	29.92	54.64	98	—15	113	Missouri river, Kansas.
34	56.23	42.76	23.66	57.70	76.61	54.81	27.51	54.16	106	—14	120	Kansas river, Kansas.
35	54.34	33.18	11.81	49.38	73.61	.....	23.68	.....	97	—23	120	Platte river, Nebraska.
36	55.04	40.34	21.67	49.72	71.61	54.79	28.84	51.24	92	—24	116	Laramie and Platte rivers, Nebraska.
37	48.38	31.91	13.86	.....	.....	48.13	.....	.....	101	—19	120	Missouri river, Nebraska.
38	62.32	50.43	36.89	63.97	81.74	63.99	39.56	62.06	107	— 1	108	Near Washita river, Indian Territory.
39	64.84	55.97	41.14	66.83	83.20	68.82	43.85	65.68	110	1	109	Red Fork of Brazos river, Texas.
40	62.19	55.20	42.19	66.67	.....	65.52	45.65	.....	110	3	107	Oak creek, (Colorado river,) Texas.
41	63.82	57.62	46.24	64.77	76.14	66.08	45.83	63.20	94	7	87	San Saba river, Texas.
42	69.65	66.41	.....	72.84	81.96	72.50	.....	.....	99	35	64	Nueces river, Texas.
43	69.65	67.20	57.48	.....	.....	73.08	.....	.....	93	20	73	Corpus Christi, Texas.
44	72.32	71.17	62.23	74.66	82.99	75.44	61.35	73.61	94	29	65	Brownsville, Texas.
45	71.77	66.90	60.35	75.08	.....	72.80	59.58	.....	96	22	74	Rio Grande, Texas.
46	75.06	67.34	58.22	75.85	84.20	75.40	57.38	73.21	103	18	85	Rio Grande, Texas.
47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Leona river, Texas.
48	68.97	62.23	53.23	73.06	83.11	70.26	52.33	69.69	104	18	86	Rio Grande, Texas.
49	68.25	63.23	52.39	70.35	80.71	70.29	46.30	66.91	100	15	85	Rio Las Moras, Texas.
50	64.21	55.15	45.64	66.05	76.38	64.23	48.55	63.80	101	24	77	Limpia river, Texas.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations	Lat.	Long.	Altitude	Jan.	Feb.	Mar.	April	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Fort Bliss	31 46	106 40	.....	50.32	53.75	67.50	65.50	.....	83.00	83.05	80.59	77.09	51
Fort Fillmore	32 14	106 15	3,937	50.08	50.62	.....	64.39	75.43	83.19	83.44	82.52	77.33	52
Fort Thorn	32 47	107 21	4,500	39.44	47.65	54.86	65.01	71.81	80.90	81.33	78.30	73.30	53
Fort Craig	33 26	107 8	4,576	40.54	46.04	57.20	63.67	73.29	79.33	79.69	80.15	74.56	54
Fort Stanton	33 30	105 38	.....	.....	.....	.....	.....	.....	.....	.....	70.90	67.64	55
Cantonment Burgwin	36 26	105 26	.....	25.77	32.70	39.66	48.42	53.79	62.37	66.49	65.11	58.95	56
Albuquerque	35 6	106 38	5,032	34.57	40.61	50.45	59.19	67.30	.....	.....	.....	.....	57
Fort Marcy	35 41	106 2	6,846	31.88	36.26	40.14	50.58	59.64	68.66	73.00	70.01	63.55	58
Fort Union	35 54	104 57	6,670	35.93	34.95	39.84	50.73	57.34	61.56	65.02	64.94	60.06	59
Fort Massachusetts	37 32	105 23	8,365	19.09	25.64	33.20	44.41	51.19	59.01	60.56	.....	53.96	60
Fort Defiance	35 44	109 15	7,200?	24.72	33.62	40.28	45.06	49.16	68.61	67.16	.....	61.09	61
Fort Yuma	32 32	114 36	355	57.92	61.20	69.73	72.96	78.41	90.25	93.86	92.42	.....	62
San Diego	32 42	117 14	150	50.11	55.72	58.42	63.76	66.06	72.40	75.57	75.22	69.69	63
Fort Tejon	34 55	118 53	.....	.....	.....	51.12	48.86	55.77	70.44	.....	75.91	64.46	64
Fort Miller	37 0	119 40	402	46.54	53.66	59.75	61.22	65.85	84.23	87.60	90.90	79.91	65
San Francisco	37 48	122 26	150	50.14	54.99	56.61	55.98	56.01	56.35	58.77	62.02	61.65	66
Benicia Barracks	38 3	122 8	64	45.78	52.17	56.38	56.91	58.29	70.66	.....	66.69	65.93	67
Fort Reading	40 30	122 5	674	44.64	51.56	57.31	59.92	64.44	81.65	.....	83.87	75.51	68
Fort Humboldt	40 46	124 9	50	45.51	49.97	52.59	53.40	57.56	59.19	.....	58.85	59.80	69
Fort Jones	41 36	122 52	2,570	27.68	39.41	46.17	49.70	54.65	67.71	.....	72.61	.....	70
Fort Orford	42 44	124 29	50	48.04	49.30	50.23	50.63	52.54	57.58	.....	59.58	58.76	71
Fort Lane	42 24	122 30	2,000	37.59	44.01	51.07	53.41	59.08	70.58	.....	73.09	.....	72
Fort Vancouver	45 40	122 30	50	42.12	43.71	50.04	51.46	57.57	64.97	.....	67.70	61.56	73
Fort Dalles	45 36	120 55	350	40.16	42.57	49.33	52.02	57.66	71.19	.....	76.01	64.63	74
Fort Steilacoom	47 10	122 25	300	41.95	43.15	47.75	48.39	54.79	59.11	.....	65.29	.....	75

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1855.

	Oct.	Nov.	Dec.	Spring	Sum.	Aut.	Win.	Year.	Max.	Min.	Range	Locality.
51	69.18	55.32	49.30	.....	82.21	67.16	51.12	.....	104	29	75	Opposite El Paso, in Texas.
52	65.59	53.39	46.98	.....	83.05	65.40	49.22	.....	106	25	81	Near Messilla, New Mexico.
53	62.57	46.59	34.51	63.56	80.18	60.85	40.53	61.28	105	12	93	Southern New Mexico.
54	62.69	46.78	35.57	64.72	79.71	61.34	40.71	61.62	108	8	100	Southern New Mexico.
55	57.54	37.87	.....	.....	.....	54.35	.....	.....	.....	.....	.....	Eastern New Mexico.
56	48.92	30.73	20.50	47.29	64.65	46.20	29.65	46.95	94	—24	118	Northern New Mexico.
57	.....	42.03	29.45	58.98	.....	.....	34.87	.....	.....	.....	.....	Albuquerque, New Mexico.
58	54.76	35.12	26.62	50.12	70.55	51.14	31.58	50.85	99	— 9	108	Santa Fe, New Mexico.
59	48.89	33.44	28.41	49.30	63.84	47.46	33.09	48.32	87	28	59	Northern New Mexico.
60	40.07	27.30	16.23	42.90	.....	40.44	20.32	.....	83	30	53	Northern New Mexico.
61	49.50	35.93	29.80	51.16	.....	48.84	29.38	.....	99	—25	124	Western New Mexico.
62	80.79	64.39	58.22	73.70	92.17	.....	59.14	.....	116	35	81	Colorado river, California.
63	67.54	54.93	49.83	62.74	74.39	64.05	51.88	63.26	98	26	72	San Diego, California.
64	61.93	45.20	39.33	51.91	.....	57.19	.....	.....	93	22	71	San Joaquin valley, California.
65	75.92	55.13	46.43	62.27	87.61	73.02	48.87	67.94	110	29	81	San Joaquin valley, California.
66	69.17	54.15	48.60	56.20	59.04	58.65	51.24	56.28	89	33	56	San Francisco, California.
67	67.51	54.15	46.55	57.19	.....	62.56	48.16	.....	97	27	70	Benicia, California.
68	71.42	50.68	38.35	60.55	.....	65.87	44.85	.....	103	11	92	Upper Sacramento valley, California.
69	58.91	50.89	46.16	54.51	.....	56.20	47.21	.....	70	28	52	Humboldt bay, California.
70	.....	37.43	29.03	50.17	70.16	.....	32.04	.....	98	—17	115	Scott's valley, California.
71	56.87	47.03	53.15	51.46	.....	54.22	50.16	.....	72	30	42	Port Orford, Oregon.
72	57.40	40.39	32.70	54.32	.....	.....	38.10	.....	98	— 5	103	Rogue river, Oregon.
73	56.78	42.11	28.30	53.02	.....	53.48	38.04	.....	85	— 1	86	Columbia river, Washington.
74	61.52	46.41	29.51	53.00	.....	57.55	37.41	.....	104	— 5	109	Columbia river, Oregon
75	56.65	44.92	34.51	50.31	.....	50.28	39.88	.....	84	5	79	Puget's Sound, Washington.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Fort Independence	42 20	71 0	50	19.38	22.11	28.37	46.12	53.05	67.87	73.88	68.74	63.93	1
Fort Hamilton	40 37	74 2	25	22.91	21.67	32.22	48.93	57.22	70.55	77.40	73.23	68.16	2
Fort Columbus	40 42	74 1	23	22.49	23.86	30.78	49.91	57.64	71.11	77.18	71.75	66.66	3
West Point	41 23	74 0	167	22.08	25.78	33.07	51.93	59.03	70.32	77.46	70.86	66.41	4
Fort Ontario	43 20	76 40	250	18.15	20.01	24.89	44.09	51.05	66.37	72.21	67.22	65.22	5
Allegheny Arsenal	40 32	80 2	704	16.65	20.55	27.68	51.62	59.44	72.61	75.87	69.11	62.39	6
Carlisle Barracks	40 12	77 14	500	17.51	21.56	28.62	51.35	58.73	72.23	76.63	69.29	65.41	7
Fort Delaware	39 35	75 34	10	23.06	24.99	32.66	51.42	60.34	72.23	79.39	72.21	67.62	8
Fort McHenry	39 17	76 35	36	23.77	26.60	34.16	54.97	62.56	75.51	79.73	73.99	68.50	9
Fort Monroe	37 0	76 18	8	31.55	35.80	41.33	58.43	66.60	75.63	80.60	76.15	70.65	10
Fort Moultrie	32 45	79 51	25	39.98	48.02	52.43	63.45	72.25	80.96	82.88	81.85	74.31	11
Fort Capron	27 30	80 20	30	59.07	62.67	68.61	72.72	77.79	81.43	82.11	84.09	80.98	12
Key West Barracks	24 32	81 48	10	67.54	68.57	73.89	75.05	80.35	83.02	.....	84.20	82.24	13
Fort Myers	26 38	82 0	50	58.44	62.30	68.76	73.85	79.45	81.24	82.78	82.81	79.70	14
Fort Dallas	25 55	80 20	20	61.76	66.03	70.98	73.89	79.26	82.02	82.45	83.86	81.37	15
Fort Brooke	28 0	82 28	20	51.81	57.52	64.55	70.96	77.39	82.14	81.78	82.82	79.91	16
Fort Deynaud	26 30	81 30	.....	58.13	62.10	69.01	72.20	77.41	.....	.....	.....	.....	17
Barrancas Barracks	30 18	87 27	20	42.62	51.90	57.74	68.57	75.09	80.40	81.94	83.10	75.15	18
Mount Vernon Arsenal	31 12	88 2	200?	39.50	56.46	57.19	68.63	74.18	78.60	81.71	81.33	74.64	19
New Orleans	29 57	90 0	10	42.58	53.84	60.45	72.32	79.08	82.99	84.12	83.88	79.99	20
Baton Rouge	30 26	91 18	41	39.63	50.96	58.96	70.14	76.27	82.14	81.45	81.38	75.04	21
Fort Washita	34 14	96 38	645	29.18	38.96	49.66	68.46	69.48	82.23	85.99	83.81	70.98	22
Fort Smith	35 23	94 29	460	25.10	36.50	45.84	66.32	70.54	81.23	83.90	79.85	68.97	23
Fort Gibson	35 47	95 10	560	22.31	30.36	.....	64.53	74.19	83.13	88.56	84.23	72.18	24
Jefferson Barracks	38 28	90 15	472	.....	.....	.....	.....	68.40	79.31	84.95	79.13	70.21	25
St. Louis Arsenal	38 40	90 5	472	17.22	23.87	33.88	58.00	66.03	77.99	82.63	73.39	65.66	26
Newport Barracks	39 5	84 29	500	18.33	25.07	34.80	57.88	63.76	75.10	78.63	71.48	65.61	27
Fort Mackinac	45 51	84 33	728	12.16	10.59	17.51	38.78	48.38	59.10	66.44	60.13	53.18	28
Fort Brady	46 30	84 43	690	11.03	9.12	16.44	39.90	50.70	60.81	68.59	61.86	54.22	29
Fort Snelling	44 53	93 10	820	6.06	11.68	19.98	48.23	60.38	72.88	76.11	67.87	59.39	30
Fort Ripley	46 19	94 19	1,130	−1.47	9.04	18.12	42.74	54.17	68.70	73.99	63.56	54.60	31
Fort Ridgely	44 15	94 48	.....	.53	12.73	20.08	45.99	61.03	71.88	75.71	66.48	56.67	32
Fort Randall	43 1	98 12	1,245	.....	.....	.....	.....	.....	.....	.....	.....	.....	33
Fort Leavenworth	39 21	94 44	896	10.12	24.62	33.52	58.72	65.48	76.57	80.92	72.44	64.85	34
Fort Riley	39 0	96 30	1,000?	10.99	25.94	38.18	60.16	66.87	80.07	84.86	76.14	67.97	35
Fort Kearny	40 38	98 57	2,360	6.05	22.80	33.95	49.48	58.99	77.84	78.02	71.24	60.48	36
Fort Laramie	42 12	104 31	4,519	19.08	30.29	39.06	53.06	60.89	74.94	76.56	71.98	59.29	37
Fort Pierre	44 23	100 12	1,456	3.78	24.47	30.33	48.51	61.47	74.58	79.41	72.48	61.03	38
Fort Arbuckle	34 27	97 9	1,000?	26.48	35.14	47.09	66.66	70.36	82.04	86.07	82.62	69.13	39
Fort Belknap	33 8	98 48	1,600?	30.47	41.54	51.71	71.85	74.27	87.56	91.92	89.65	72.64	40
Fort Chadbourne	32 2	100 5	2,120	32.93	42.67	52.38	68.25	72.52	83.84	85.85	83.94	70.71	41
Fort McKavett	30 55	100 5	2,060	35.26	45.89	56.02	71.05	74.32	83.05	85.18	85.26	72.20	42
Corpus Christi	27 47	97 27	20	44.19	53.65	61.57	.....	.....	.....	.....	.....	.....	43
Fort Mason	30 50	99 10	.....	.....	.....	58.22	71.88	75.52	83.48	85.20	86.68	74.61	44
Fort Lancaster	30 42	101 25	2,350	.....	.....	.....	.....	71.13	82.84	83.95	83.60	71.77	45
Camp Verde	30 0	99 10	1,400	.....	.....	.....	.....	.....	.....	.....	.....	.....	46
Camp Colorado	31 55	99 17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47
Fort Brown	25 53	97 26	50	51.56	60.61	66.46	75.63	80.44	83.23	83.10	85.01	79.79	48
Ringgold Barracks	26 23	98 47	521	47.93	59.42	67.13	77.97	80.06	85.69	86.24	88.30	79.16	49
Fort McIntosh	27 30	99 29	806	45.20	56.87	66.26	78.92	82.66	86.75	88.11	89.72	81.22	50

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1856.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
1	.....	.....	.....	42.51	70.16	.....	.....	.....	98	— 5	103	Boston harbor, Massachusetts.
2	56.09	43.33	30.62	46.12	73.73	55.86	26.07	50.44	95	3	92	New York harbor, New York.
2	53.73	42.65	31.22	46.11	73.35	54.35	25.86	49.92	95	— 6	101	New York harbor, New York.
4	54.45	44.48	30.79	48.01	72.88	55.12	26.22	50.56	95	0	95	West Point, New York.
5	.....	.....	.....	40.01	68.60	.....	.....	.....	93	— 3	96	Oswego, New York.
6	49.77	40.11	27.67	46.24	72.53	50.76	21.62	47.79	96	—18	114	Pittsburg, Pennsylvania.
7	50.70	37.99	27.31	46.23	72.72	51.37	22.13	48.11	96	20	76	Carlisle, Pennsylvania.
8	55.24	44.91	32.40	48.14	74.61	55.92	26.82	51.37	97	— 4	101	Near Newcastle, Delaware.
9	56.86	46.17	34.28	50.56	76.41	57.18	28.22	53.07	98	— 4	102	Near Baltimore, Maryland.
10	61.26	52.56	40.38	55.45	77.46	61.49	35.91	57.58	93	8	85	Old Point Comfort, Virginia.
11	65.58	58.89	48.60	62.71	81.90	66.26	45.53	64.10	96	21	75	Charleston harbor, South Carolina.
12	77.07	74.23	65.40	73.04	82.54	77.43	62.38	73.85	91	30	61	Indian river, Florida.
13	78.95	76.73	72.22	76.43	.....	79.31	69.44	.....	88	50	38	Key West, Florida.
14	76.14	77.36	64.42	74.02	82.28	77.73	61.72	73.94	98	32	66	Charlotte's harbor, Florida
15	78.93	76.10	70.51	74.71	82.78	78.80	66.10	75.60	92	35	57	Miami river, Florida.
16	73.66	70.29	60.48	70.97	82.25	74.62	56.94	73.69	94	29	65	Tampa Bay, Florida.
17	.....	71.21	63.23	72.87	.....	.....	61.15	.....	.....	.....	.....	Caloosa Hatchee river, Florida.
18	68.02	60.54	51.32	67.13	81.79	67.90	41.95	64.69	96	22	74	Pensacola, Florida.
19	66.97	58.68	49.29	66.66	80.21	66.76	46.42	65.01	95	20	75	Mount Vernon, Alabama.
20	70.50	63.07	54.13	70.62	83.66	70.85	50.18	68.83	94	31	63	New Orleans, Louisiana.
21	67.59	59.16	51.31	68.46	81.66	67.26	47.30	66.17	94	21	73	Baton Rouge, Louisiana.
22	64.08	48.54	39.01	62.53	84.01	61.21	35.72	60.86	106	5	101	Near Washita river, Chickasaw Nation.
23	62.30	46.13	36.02	60.90	81.66	59.13	32.54	58.56	103	2	101	Arkansas river, Arkansas.
24	63.93	45.55	33.96	.....	86.97	60.89	28.88	.....	105	—15	120	Neosho river, Cherokee Nation
25	61.93	44.20	32.40	.....	81.13	58.78	.....	.....	102	7	95	Near St. Louis, Missouri.
26	58.19	39.66	.....	52.64	78.00	54.50	.....	.....	107	—18	125	St. Louis, Missouri.
27	56.69	42.58	28.71	52.15	75.07	54.96	24.04	51.55	93	—15	108	Newport, Kentucky.
28	.....	.....	.....	34.89	61.89	.....	.....	.....	82	—11	93	Island of Mackinac, Michigan.
29	.....	.....	.....	35.68	63.75	.....	.....	.....	91	—24	115	Sault Ste Marie, Michigan.
30	51.57	31.01	8.71	42.90	72.29	47.32	8.82	42.83	95	—32	127	Mouth of St. Peter's river, Minnesota.
31	45.64	25.36	5.12	38.34	68.75	41.87	4.23	38.30	95	—34	129	Upper Mississippi river, Minnesota.
32	49.49	28.28	7.30	42.37	71.36	44.79	6.85	41.34	96	—24	120	St. Peter's river, Minnesota.
33	.....	30.99	8.91	.....	.....	.....	.....	.....	.....	.....	.....	Missouri river, Nebraska.
34	58.01	36.87	22.54	52.54	76.64	53.24	19.09	50.38	99	—14	113	Missouri river, Kansas.
35	60.34	38.07	20.31	55.07	80.36	55.46	19.08	52.69	104	— 9	113	Kansas river, Kansas.
36	52.38	31.40	12.24	47.47	75.70	58.09	13.70	48.74	101	—20	121	Platte river, Nebraska.
37	50.75	31.65	22.71	51.00	74.49	47.23	24.03	49.19	104	— 9	113	Laramie and Platte rivers, Nebraska.
38	56.65	30.02	8.84	46.77	75.49	47.23	12.36	45.46	104	—29	133	Missouri river, Nebraska.
39	62.53	45.27	35.88	61.37	83.58	55.64	32.50	58.27	109	— 4	113	Near Washita river, Indian Territory.
40	66.27	49.66	41.14	65.94	89.71	62.86	37.72	64.06	108	13	95	Red Fork of Brazos river, Texas.
41	63.46	47.92	41.86	64.38	84.54	60.70	39.15	62.19	106	11	95	Oak creek, (Colorado river,) Texas.
42	64.39	52.16	48.60	67.13	84.46	63.08	43.25	64.48	104	10	94	San Saba river, Texas.
43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Corpus Christi, Texas.
44	66.13	55.03	47.24	68.54	85.12	65.26	.....	.....	103	.....	.....	Llano river, Texas.
45	63.46	51.12	43.32	.....	83.46	62.12	.....	.....	107	11	96	Live Oak creek, (Pecos river,) Texas.
46	.....	50.15	43.08	.....	.....	.....	.....	.....	.....	.....	.....	Verde creek, (Gaudalupe river,) Texas.
47	.....	50.35	43.92	.....	.....	.....	.....	.....	.....	.....	.....	Muke-water creek, (Colorado river,) Tex.
48	74.85	66.91	59.99	74.18	83.78	73.85	57.39	72.55	95	30	65	Brownsville, Texas.
49	71.79	61.05	56.00	75.05	80.74	70.67	54.45	71.73	102	24	78	Rio Grande, Texas.
50	73.49	61.40	54.61	75.95	88.16	72.04	52.23	72.09	102	23	79	Rio Grande, Texas.

POSITIONS OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Fort Clark	29 17	100 25	1,000?	41.81	54.58	60.32	73.22	78.59	85.22	85.87	88.31	78.00	51
Fort Duncan	28 42	100 30	1,460	43.53	54.54	63.51	75.86	81.42	88.34	86.23	90.44	79.49	52
Fort Davis	30 26	103 37	4,700	36.84	43.89	53.79	66.68	71.54	79.65	77.98	75.06	67.53	53
Fort Bliss	31 46	106 40	.....	37.54	44.84	55.27	67.35	75.17	85.26	86.12	81.76	69.76	54
Fort Fillmore	32 14	106 15	3,937	43.31	46.76	57.38	69.03	75.37	85.05	85.05	83.51	75.53	55
Fort Thorn	32 47	107 21	4,500	30.42	35.28	47.98	62.74	68.63	82.52	84.73	81.41	68.90	56
Fort Craig	33 26	107 8	4,576	32.30	44.29	56.99	69.18	76.56	86.11	86.33	85.49	73.57	57
Fort Stanton	33 30	105 38	.....	28.66	36.49	44.06	57.75	61.74	75.12	73.52	70.76	61.15	58
Albuquerque	35 6	106 38	5,032	29.48	36.61	46.80	58.39	67.14	81.77	83.17	80.28	72.90	59
Fort Marcy	35 41	106 2	6,846	24.21	29.71	40.13	50.05	58.87	73.56	74.35	71.92	64.36	60
Fort Union	35 54	104 57	6,670	24.37	27.81	36.68	49.06	57.32	70.00	73.03	67.35	58.35	61
Cantonment Burgwin	36 26	105 26	.....	14.58	23.47	33.66	47.36	56.75	70.73	73.03	66.44	57.25	62
Fort Massachusetts	37 32	105 23	8,365	11.01	17.80	29.43	42.58	52.08	66.50	66.59	62.01	52.96	63
Fort Defiance	35 44	109 15	7,200?	23.69	25.51	36.36	47.36	54.77	67.26	70.04	65.97	56.67	64
Fort Yuma	32 32	114 36	355	54.98	61.51	69.62	74.14	79.00	93.08	96.00	93.36	87.49	65
San Diego	32 42	117 14	150	49.29	51.67	55.68	60.47	62.06	70.60	74.39	73.58	70.16	66
Fort Tejon	34 55	118 53	.....	45.85	48.41	51.33	54.90	62.11	71.99	79.77	75.94	68.79	67
Fort Miller	37 0	119 40	402	49.43	53.07	60.82	63.86	71.96	82.49	88.29	84.95	79.34	68
San Francisco	37 48	122 26	150	56.70	53.66	54.31	55.77	54.04	56.88	56.34	56.17	58.56	69
Benicia Barracks	38 3	122 8	64	47.74	53.99	56.66	58.73	60.61	66.38	67.37	66.06	66.05	70
Fort Humboldt	40 46	124 9	50	50.96	50.58	53.23	54.49	57.06	59.97	60.41	59.69	56.97	71
Fort Jones	41 36	122 52	2,570	34.76	38.76	49.15	49.78	58.55	69.56	75.90	75.23	70.28	72
Fort Hoskins	44 37	123 18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	73
Fort Orford	42 44	124 29	50	49.04	48.35	51.40	50.70	54.68	57.02	58.05	.....	.....	74
Fort Lane	42 24	122 30	2,000	40.99	43.03	52.48	51.48	61.39	66.74	74.55	.....	.....	75
Fort Yamhill	45 5	123 32	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	76
Fort Vancouver	45 40	122 30	50	37.84	43.82	50.55	51.13	59.75	61.62	66.11	64.15	62.76	77
Fort Umpqua	43 42	124 9	8?	.....	.....	.....	.....	.....	.....	.....	58.48	58.76	78
Fort Dalles	45 36	120 55	350	.....	42.30	50.91	.....	.....	.....	.....	.....	.....	79
Fort Steilacoom	47 10	122 25	300	42.16	43.18	47.72	51.07	55.25	59.60	63.08	64.70	60.75	80

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1856.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality
51	69.00	57.10	51.68	70.71	86.47	68.03	49.36	68.64	103	21	82	Rio Las Moras, Texas.
52	72.30	58.20	51.27	73.60	88.34	69.99	49.78	70.00	109	21	88	Rio Grande, Texas.
53	61.13	48.44	43.64	70.67	77.56	59.03	41.46	62.18	104	10	94	Limpia river, Texas.
54	62.78	53.45	38.76	65.93	84.38	61.99	40.38	63.17	105	12	93	Opposite El Paso, in Texas.
55	65.64	53.50	41.33	67.26	84.54	64.89	43.80	65.12	100	17	83	Near Mesilla, New Mexico.
56	56.64	44.27	33.41	59.78	82.89	56.60	33.04	58.08	111	11	100	Southern New Mexico.
57	60.54	43.56	31.82	67.58	85.98	55.89	36.14	61.39	104	8	96	Southern New Mexico.
58	54.44	40.48	31.10	54.52	73.13	52.02	32.08	52.94	96	— 3	99	Eastern New Mexico.
59	55.86	39.66	28.25	57.44	81.74	56.14	31.45	56.69	104	5	99	Albuquerque, New Mexico.
60	51.27	34.95	21.05	49.68	73.28	50.19	24.99	49.53	103	0	103	Santa Fé, New Mexico.
61	46.43	30.15	23.10	47.69	70.13	44.98	25.09	46.97	89	—13	102	Northern New Mexico.
62	42.06	27.37	15.39	45.92	70.07	42.23	17.81	44.01	95	—17	112	Northern New Mexico.
63	38.16	23.48	12.72	41.36	65.03	34.87	13.84	38.77	89	—18	107	Northern New Mexico.
64	44.01	29.42	17.17	46.16	67.76	43.37	22.12	44.85	96	—10	106	Western New Mexico.
65	71.80	60.22	49.82	74.25	94.15	73.17	55.44	74.25	116	34	82	Colorado river, California.
66	60.45	54.30	47.61	59.40	72.86	61.64	49.52	60.85	102	27	75	San Diego, California.
67	54.22	48.14	40.97	56.11	75.90	57.05	45.08	58.53	98	24	74	San Joaquin valley, California.
68	62.25	52.91	42.45	65.55	85.24	63.83	44.98	64.65	106	31	75	San Joaquin valley, California.
69	56.71	52.08	46.75	54.71	56.46	55.78	50.37	54.33	70	37	33	San Francisco, California.
70	59.98	55.48	45.46	58.67	66.60	60.50	45.73	57.87	96	31	65	Benicia, California.
71	52.43	58.77	44.33	54.93	60.02	52.72	48.62	54.07	72	31	41	Humboldt bay, California.
72	48.58	38.29	27.63	52.49	73.56	52.38	33.72	52.76	106	3	103	Scott's valley, California.
73	.....	42.14	38.52	.....	.....	.....	.....	.....	.....	.....	.....	South Fork of Yamhill river, Oregon.
74	.....	.....	.....	52.26	.....	.....	.....	.....	69	32	37	Port Orford, Oregon.
75	.....	.....	.....	55.12	.....	.....	.....	.....	102	24	78	Rogue river, Oregon.
76	.....	43.67	38.88	.....	.....	.....	.....	.....	.....	.....	.....	Yamhill river, Oregon.
77	51.53	43.45	37.64	53.81	63.96	55.91	39.77	53.36	85	24	61	Columbia river, Washington.
78	51.72	47.72	44.65	.....	.....	52.73	.....	.....	71	34	37	Umpqua City, Oregon.
79	.....	.....	32.18	.....	.....	.....	.....	.....	.....	.....	.....	Columbia river, Oregon.
80	51.39	43.83	37.84	51.35	62.46	51.99	41.06	51.71	88	23	65	Puget's Sound, Washington.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb.	Mar.	April	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	Feet.										
Kennebec Arsenal	44 19	81 15	.....	.....	.....	.....	.....	52.85	62.04	70.59	65.63	58.91	1
Fort Independence	42 20	71 0	50	16.56	33.23	33.26	42.60	55.16	64.31	71.97	70.64	63.53	2
Fort Adams	41 29	71 20	40	.....	.....	.....	.....	.....	.....	.....	68.97	63.32	3
Fort Hamilton	40 37	74 2	25	18.81	35.05	34.36	42.05	55.93	64.44	71.38	70.63	63.74	4
Fort Columbus	40 42	74 1	23	19.61	34.42	35.28	43.27	58.24	68.66	73.95	72.68	64.84	5
West Point	41 23	74 0	167	19.09	36.30	37.29	45.62	59.26	67.07	74.23	72.59	66.21	6
Allegheny Arsenal	40 32	80 2	704	16.43	40.56	35.97	41.86	57.82	68.82	73.63	70.61	64.81	7
Carlisle Barracks	40 12	77 14	500	16.77	34.69	34.93	42.69	59.35	68.85	73.30	72.34	66.02	8
Fort Delaware	39 35	75 34	10	22.00	37.54	37.23	45.28	61.02	71.16	77.39	75.37	67.76	9
Fort McHenry	39 17	76 35	36	23.37	41.34	40.35	46.52	62.31	71.45	75.35	74.40	68.61	10
Fort Monroe	37 0	76 18	8	28.41	46.51	44.92	50.03	63.29	75.95	76.45	78.70	73.17	11
Fort Moultrie	32 45	79 51	25	40.82	55.77	52.54	58.12	69.78	78.66	78.65	80.38	76.55	12
Fort Capron	27 30	80 20	30	57.46	67.95	68.19	70.52	76.88	81.09	82.34	82.85	82.27	13
Key West Barracks	24 32	81 48	10	65.66	71.30	72.23	72.87	78.90	82.45	81.78	82.24	.....	14
Fort Myers	26 38	82 0	50	58.11	67.01	69.15	69.00	76.87	79.52	81.42	81.97	80.22	15
Fort Dallas	25 55	80 20	20	62.34	70.23	72.58	72.79	78.68	81.83	81.51	83.48	82.61	16
Fort Deynaud	26 30	81 30	.....	56.63	66.21	68.31	71.20	77.32	80.02	81.09	81.02	.....	17
Fort Brooke	28 0	82 28	20	55.57	66.03	64.71	65.90	75.34	78.45	80.75	81.62	78.99	18
Mount Vernon Arsenal	31 12	88 2	200?	43.73	61.48	56.48	59.07	71.08	79.36	79.86	78.65	76.58	19
New Orleans	29 57	90 0	10	50.58	64.98	62.35	64.96	74.16	80.09	81.80	81.80	80.15	20
Baton Rouge	30 26	91 18	41	47.79	64.62	60.57	60.52	71.08	77.73	79.60	79.89	76.44	21
Fort Washita	34 14	96 38	645	30.51	53.11	54.59	55.90	67.70	77.53	80.96	79.35	73.95	22
Fort Smith	35 23	94 29	460	27.83	51.19	50.45	51.86	66.89	75.97	79.68	75.98	71.95	23
Fort Gibson	35 47	95 10	560	23.13	.....	49.97	.....	.....	76.99	.....	.....	.....	24
Jefferson Barracks	38 28	90 15	472	20.54	42.40	39.00	43.23	63.12	75.57	79.69	76.31	72.86	25
Newport Barracks	39 5	84 29	500	19.34	43.44	37.77	43.31	58.72	69.43	73.95	73.66	68.55	26
Fort Snelling	44 53	93 10	820	−2.50	16.41	23.94	32.41	55.27	65.17	75.42	69.77	61.80	27
Fort Ripley	46 19	94 19	1,130	−6.51	11.24	18.75	29.55	52.86	64.65	.....	.....	.....	28
Fort Ridgely	44 15	94 48	.....	−1.82	13.84	21.87	29.96	55.67	65.80	73.23	67.36	59.95	29
Fort Randall	43 1	98 12	1,245	3.40	14.77	28.15	33.78	54.36	68.37	76.36	73.42	76.37	30
Fort Pierre	44 23	100 12	1,456	5.89	14.99	33.20	39.13	58.83	.....	.....	.....	.....	31
Fort Leavenworth	39 21	94 44	896	12.11	33.18	36.21	45.19	63.01	75.15	82.50	79.10	72.67	32
Fort Riley	39 0	96 30	1,000?	9.39	31.55	39.03	44.75	59.92	74.89	82.02	77.33	70.41	33
Fort Kearny	40 38	98 57	2,360	8.95	21.05	33.25	37.75	54.16	70.68	76.11	71.26	65.17	34
Fort Laramie	42 12	104 31	4,519	24.86	32.93	40.93	40.81	53.72	65.55	75.63	73.47	64.74	35
Fort Arbuckle	34 27	97 9	1,000?	27.16	49.07	52.79	53.81	65.32	76.29	81.22	76.96	72.98	36
Fort Belknap	33 8	98 48	1,600?	33.27	54.15	56.55	57.53	70.58	80.38	85.62	83.35	76.58	37
Camp Cooper	31 1	99 0	.....	.....	51.14	56.11	55.59	72.02	82.69	86.32	81.53	73.04	38
Fort Chadbourne	32 2	100 5	2,120	36.60	52.81	56.48	55.14	69.72	79.08	82.29	81.50	72.21	39
Fort McKavett	30 55	100 5	2,060	42.25	56.73	59.18	58.34	71.37	78.35	80.53	80.77	72.57	40
San Antonio	29 25	98 25	600	.....	.....	.....	.....	.....	.....	.....	86.87	80.34	41
Fort Mason	30 50	99 10	.....	41.81	58.14	58.72	58.84	72.30	80.40	84.20	83.30	75.30	42
Fort Lancaster	30 42	101 25	2,350	39.46	55.01	60.35	59.25	71.91	79.03	80.66	81.78	78.69	43
Camp Verde	30 0	99 10	1,400	40.59	55.06	56.72	57.05	69.95	78.21	83.02	83.16	73.98	44
Camp Colorado	31 55	99 17	.....	38.09	55.31	57.89	58.72	72.01	82.59	84.81	82.74	74.55	45
Fort Brown	25 53	97 26	50	58.46	67.84	67.52	68.30	75.43	82.10	83.41	84.96	81.24	46
Ringgold Barracks	26 23	98 47	521	55.47	68.69	66.68	68.19	77.31	85.17	85.63	87.50	81.44	47
Fort McIntosh	27 30	99 29	806	52.93	68.53	68.96	69.99	81.05	86.59	86.41	88.77	82.30	48
Fort Clark	29 17	100 25	1,000?	48.59	61.54	63.62	63.49	74.80	81.92	.....	86.45	78.45	49
Fort Duncan	28 42	100 30	1,460	48.38	63.10	65.56	66.56	78.58	85.00	87.42	87.31	80.11	50

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1857.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
1	47.02	37.25	25.98	.....	66.09	47.74	.....	.....	89	4	85	Augusta, Maine.
2	52.09	42.99	34.77	43.67	68.97	52.87	28.18	48.32	91	—13	104	Boston harbor, Massachusetts.
3	33.50	44.48	36.47	.....	.....	47.10	.....	.....	.....	.....	.....	Newport, Rhode Island.
4	53.46	42.45	37.69	44.11	68.82	53.22	30.52	49.17	89	1	88	New York harbor, New York.
5	53.32	42.46	36.91	45.59	71.76	53.54	30.31	50.30	91	15	76	New York harbor, New York.
6	54.82	44.21	39.28	47.06	71.29	55.08	31.56	51.25	88	— 6	94	West Point, New York.
7	51.66	39.03	37.54	45.22	71.02	51.83	31.51	49.89	92	—12	104	Pittsburg, Pennsylvania.
8	52.45	38.50	35.70	45.66	71.50	52.32	29.05	49.63	87	—16	103	Carlisle, Pennsylvania.
9	36.37	44.16	39.14	47.84	74.64	49.43	32.89	51.20	98	0	98	Near Newcastle, Delaware.
10	56.26	45.45	42.25	49.73	73.70	56.77	35.65	53.96	92	— 6	98	Near Baltimore, Maryland.
11	60.71	50.68	48.37	52.75	77.03	61.52	31.33	55.66	95	2	93	Old Point Comfort, Virginia.
12	64.40	57.58	55.71	60.18	79.23	66.24	50.77	64.10	90	15	75	Charleston harbor, South Carolina.
13	73.98	71.00	70.36	71.86	82.09	77.08	52.26	70.82	93	29	64	Indian river, Florida.
14	.....	76.27	78.71	74.67	82.15	.....	71.89	.....	90	41	46	Key West, Florida.
15	73.30	69.65	69.14	71.67	80.97	74.39	64.75	72.94	94	32	62	Charlotte's harbor, Florida.
16	76.18	74.56	73.87	74.68	82.27	77.78	68.81	75.88	89	30	59	Miami river, Florida.
17	.....	.....	.....	72.29	80.71	.....	.....	.....	92	28	64	Caloosa Hatchee river, Florida.
18	.....	68.21	61.51	68.65	80.27	.....	62.03	.....	90	26	64	Tampa bay, Florida.
19	60.86	56.99	55.73	62.21	79.29	64.81	53.64	64.99	92	10	82	Mount Vernon, Alabama.
20	69.77	61.10	58.13	67.15	81.23	70.34	57.89	69.15	87	28	59	New Orleans, Louisiana.
21	65.90	57.59	55.17	64.06	79.07	66.64	55.86	66.41	92	19	73	Baton Rouge, Louisiana.
22	60.95	48.99	48.58	59.39	79.28	61.20	44.07	61.01	99	— 4	103	Near Washita river, Chickasaw Nation.
23	59.08	45.86	46.54	56.40	77.21	58.96	41.85	58.60	100	5	95	Arkansas river, Arkansas.
24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Neosho river, Cherokee Nation.
25	55.48	40.16	41.05	48.45	77.19	56.16	34.66	54.11	100	0	100	Near St. Louis, Missouri.
26	54.23	39.89	39.95	46.60	72.34	54.22	34.24	51.85	89	—11	100	Newport, Kentucky.
27	48.52	26.37	25.42	37.20	70.12	45.56	13.11	41.49	91	—35	126	Mouth of St. Peter's river, Minnesota.
28	.....	24.55	20.13	33.72	.....	.....	8.28	.....	.....	—37	.....	Upper Mississippi river, Minnesota.
29	46.44	26.62	24.08	35.83	68.79	44.33	12.03	40.24	96	—26	122	St. Peter's river, Minnesota.
30	48.94	31.32	28.60	38.76	72.72	47.88	15.59	43.47	104	10	94	Missouri river, Nebraska.
31	.....	.....	.....	41.05	.....	.....	.....	.....	.....	.....	.....	Missouri river, Nebraska.
32	55.44	37.47	39.21	48.73	75.58	55.19	28.17	51.77	103	—20	123	Missouri river, Kansas.
33	55.07	36.80	37.40	47.90	78.08	54.12	26.11	51.55	105	—23	128	Kansas river, Kansas.
34	48.66	30.59	30.28	41.72	72.68	48.14	20.09	45.66	102	—12	114	Platte river, Nebraska.
35	55.36	33.63	30.15	51.11	71.55	51.24	29.31	50.80	98	—14	112	Laramie and Platte rivers, Nebraska.
36	59.10	46.24	45.56	57.31	78.15	59.44	40.60	58.85	106	— 4	110	Near Washita river, Indian Territory.
37	64.83	50.86	46.72	61.55	83.12	64.09	44.71	63.37	106	12	94	Red Fork of Brazos river, Texas.
38	60.09	.....	.....	61.24	83.51	.....	.....	.....	115	23	92	Clear Fork of Brazos river, Texas.
39	61.74	49.63	45.41	60.44	80.96	61.19	44.94	61.88	104	5	99	Oak creek, (Colorado river,) Texas.
40	63.32	53.20	47.66	62.96	79.88	63.03	48.48	63.59	101	11	90	San Saba river, Texas.
41	73.33	61.39	56.03	.....	.....	75.02	.....	.....	98	34	64	San Antonio, Texas.
42	65.18	54.49	49.32	63.28	82.63	64.99	49.76	65.16	106	30	76	Llano river, Texas.
43	63.94	50.77	45.79	63.83	81.49	64.46	46.75	61.63	106	5	101	Live Oak creek, (Pecos river,) Texas.
44	63.59	53.01	43.02	61.24	78.13	63.52	46.22	62.28	102	10	92	Verde creek, (Gaudalupe river,) Texas.
45	63.15	51.52	47.52	62.87	83.38	63.09	46.97	64.08	107	8	99	Muke-water creek, (Colorado river,) Texas.
46	75.34	68.47	62.34	70.42	83.49	75.02	62.88	72.93	96	29	67	Brownsville, Texas.
47	73.53	65.71	58.94	70.72	86.10	73.56	61.03	72.85	104	31	73	Rio Grande, Texas.
48	73.86	66.10	58.83	73.33	87.26	74.09	60.10	73.69	105	23	82	Rio Grande, Texas.
49	69.34	62.23	54.13	67.30	.....	70.01	54.08	.....	72	17	55	Rio Las Moras, Texas.
50	70.62	63.06	56.66	70.23	86.58	71.26	56.05	71.03	104	20	84	Rio Grande, Texas.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Camp Moore	.....	.....	.....	46.00	48.70	62.13	64.05	70.61	.....	.....	.....	.....	51
Fort Davis	30 26	103 37	4,700	45.51	51.39	59.45	.....	70.23	76.26	75.93	76.12	69.10	52
Fort Bliss	31 46	106 40	.....	43.47	48.33	59.70	.....	71.81	80.07	84.08	80.56	70.25	53
Fort Buchanan	31 40	111 35	5,330	.....	.....	.....	.....	.....	.....	.....	78.67	77.03	54
Fort Thorn	32 47	107 21	4,500	38.67	44.72	.....	57.70	66.78	77.41	79.93	74.88	65.88	55
Fort Fillmore	32 14	106 15	3,937	46.72	49.24	61.31	63.88	75.40	83.32	84.76	81.82	73.11	56
Fort Craig	33 26	107 8	4,576	38.72	45.24	56.86	61.52	70.93	82.16	84.50	78.10	68.66	57
Fort Stanton	33 30	105 38	.....	34.92	34.44	47.33	47.16	57.35	64.34	69.01	67.83	55.95	58
Albuquerque	35 6	106 38	5,032	35.13	42.32	50.67	54.50	62.33	68.83	78.21	78.38	67.15	59
Fort Marcy	35 41	106 2	6,846	25.48	39.77	46.64	49.83	57.48	68.71	71.52	78.69	60.29	60
Fort Union	35 54	104 57	6,670	30.96	34.50	42.88	46.22	56.48	67.66	69.33	67.56	58.61	61
Cantonment Burgwin	36 26	105 26	.....	20.08	27.13	41.74	46.88	53.95	66.43	70.80	66.48	58.10	62
Fort Massachusetts	37 32	105 23	8,365	18.43	22.34	36.47	40.11	45.50	61.05	66.04	63.72	56.36	63
Fort Defiance	35 44	109 15	7,200?	27.34	32.38	46.10	50.04	57.40	68.51	73.47	71.08	60.91	64
Fort Yuma	32 32	114 36	355	59.41	60.42	71.70	75.78	79.68	88.78	.....	94.03	85.50	65
San Diego	32 42	117 14	150	50.99	52.24	57.39	63.00	65.49	71.53	.....	75.06	69.27	66
Fort Tejon	34 55	118 53	.....	45.19	46.42	56.12	61.63	65.14	73.54	75.51	79.43	68.96	67
Fort Miller	37 0	119 40	402	47.13	50.92	58.32	69.58	73.24	86.83	84.82	85.80	74.63	68
San Francisco	37 48	122 26	150	50.58	50.17	52.98	56.19	55.53	58.75	57.66	57.59	59.96	69
Benicia Barracks	38 3	122 8	64	49.39	49.17	57.10	60.84	61.62	68.39	68.96	67.73	70.97	70
Fort Humboldt	40 46	124 9	50	48.29	46.78	51.56	55.54	55.92	60.22	.....	56.96	57.83	71
Fort Jones	41 36	122 52	2,570	30.98	35.77	44.84	58.94	61.65	68.52	.....	73.06	63.54	72
Fort Umpqua	43 42	124 9	8?	46.81	47.33	51.08	54.22	56.87	61.27	60.62	58.11	59.20	73
Fort Yamhill	45 5	123 32	.....	38.79	41.83	47.42	55.48	57.27	57.85	62.28	60.05	57.22	74
Fort Vancouver	45 40	122 30	50	34.51	43.44	48.90	56.60	60.12	64.66	.....	67.05	61.17	75
Fort Dalles	45 36	120 55	350	26.65	42.12	49.48	56.83	63.11	68.29	72.06	71.53	63.16	76
Fort Hoskins	44 37	123 18	.....	38.56	42.41	46.86	56.65	58.33	62.32	64.09	64.19	60.57	77
Fort Steilacoom	47 10	122 25	300	38.56	40.70	41.66	51.41	55.14	57.66	61.39	61.18	56.14	78
Fort Walla-Walla	46 3	118 20	.....	27.44	39.78	46.51	.....	.....	73.00	70.87	75.83	65.70	79
Fort Bellingham	48 45	122 30	88	.....	.....	47.44	54.80	59.88	64.33	64.38	62.21	57.43	80
Fort Simcoe	46 14	120 40	.....	.....	.....	.....	54.86	61.77	67.60	70.28	70.73	60.84	81

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1857

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
51	.....	.....	.....	65.59	.....	.....	.....	.....	105	0	105	
52	60.85	52.26	44.86	.....	76.10	60.77	47.25	.....	96	13	83	Limpia river, Texas.
53	62.02	57.85	43.82	.....	81.51	63.04	41.87	.....	102	18	84	Opposite El Paso, in Texas.
54	65.70	48.92	39.76	.....	.....	63.88	.....	.....	97	20	77	Arizona.
55	55.76	46.21	34.63	.....	77.07	59.28	39.34	.....	104	6	98	Southern New Mexico.
56	64.14	54.89	41.38	66.86	83.30	64.05	45.78	69.08	104	22	82	Near Mesilla, New Mexico.
57	58.88	44.47	32.48	66.43	81.58	57.30	38.81	61.03	111	5	106	Southern New Mexico.
58	46.27	37.16	31.26	50.94	67.06	46.46	33.21	49.33	86	6	80	Eastern New Mexico.
59	55.78	47.49	37.84	55.83	75.14	56.81	38.46	56.56	105	— 4	109	Albuquerque, New Mexico.
60	49.90	37.56	29.29	51.32	69.67	49.25	31.51	50.44	91	3	88	Santa Fé, New Mexico.
61	45.96	33.99	30.04	48.53	68.18	46.18	31.83	48.68	96	— 8	104	Northern New Mexico.
62	45.93	33.63	20.06	47.52	67.90	45.92	20.09	46.11	94	—17	111	Northern New Mexico.
63	42.04	24.14	13.38	40.39	63.60	40.84	18.05	40.72	89	—17	106	Northern New Mexico.
64	47.69	32.87	23.24	51.18	71.03	47.15	27.64	49.25	91	—11	102	Western New Mexico.
65	75.20	64.01	55.99	75.72	.....	74.90	58.61	.....	111	39	72	Colorado river, California.
66	63.18	57.07	49.76	61.96	.....	63.17	50.99	.....	97	33	64	San Diego, California.
67	62.62	48.36	41.90	60.96	76.16	59.96	40.50	60.39	97	25	72	San Joaquin valley, California.
68	65.13	53.74	47.51	67.05	83.82	64.50	48.25	65.90	106	32	74	San Joaquin valley, California.
69	58.90	53.94	49.71	54.90	58.00	57.60	53.15	55.91	82	32	50	San Francisco, California.
70	66.31	55.55	49.45	59.85	68.36	64.27	49.37	60.46	105	32	73	Benicia, California.
71	55.78	50.51	48.63	54.34	.....	54.37	47.90	.....	65	29	36	Humboldt bay, California.
72	52.03	40.68	37.16	55.14	.....	52.08	34.63	.....	100	—17	117	Scott's valley, California.
73	57.06	50.92	48.92	54.05	60.00	55.39	47.68	54.28	73	26	47	Umpqua City, Oregon.
74	52.43	43.61	42.44	53.39	60.06	51.09	41.02	51.39	95	9	86	Yamhill river, Oregon.
75	53.73	43.25	42.16	55.21	.....	52.72	40.04	.....	88	2	86	Columbia river, Washington.
76	52.86	42.29	41.14	56.47	70.62	52.77	36.63	54.12	103	—10	113	Columbia river, Oregon.
77	53.49	44.53	42.87	53.94	63.53	52.86	41.28	52.90	100	0	100	South Fork of Yamhill river, Oregon.
78	50.69	42.82	41.27	52.73	60.08	49.22	40.17	50.55	90	2	88	Puget's Sound, Washington.
79	55.65	39.63	38.61	.....	73.23	53.66	31.94	.....	99	—20	119	Walla-Walla valley, Oregon.
80	52.29	43.76	42.57	54.04	60.31	51.16	.....	.....	93	29	64	Bellingham bay, Washington.
81	51.72	36.29	36.35	.....	69.20	49.62	.....	.....	93	24	69	Yakima Reservation, Washington.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat	Long	Altitude.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Kennebec Arsenal	44 19	84 15	.....	22.95	15.51	28.40	40.74	52.23	67.14	68.35	65.35	.....	1
Fort Independence	42 20	71 0	50	32.17	24.78	33.10	45.09	54.03	67.92	71.02	68.55	63.36	2
Fort Adams	41 29	71 20	40	35.25	26.44	.....	45.56	52.35	64.82	70.14	67.57	63.39	3
Fort Hamilton	40 37	74 2	25	35.89	25.77	34.86	47.65	54.35	70.25	75.35	71.15	64.90	4
Fort Columbus	40 42	74 1	23	35.29	24.47	34.97	47.92	56.10	72.25	74.63	71.66	65.35	5
West Point	41 23	74 0	167	37.61	27.98	39.11	50.85	59.39	73.57	74.58	71.87	67.90	6
Alleghany Arsenal	40 32	80 2	704	37.07	25.79	37.66	51.65	59.63	72.69	77.10	71.98	63.12	7
Carlisle Barracks	40 12	77 14	500	34.45	25.44	39.81	50.41	59.09	74.42	76.57	71.92	62.98	8
Fort Delaware	39 35	75 34	10	38.91	28.67	30.29	52.19	58.48	76.69	79.83	74.70	70.02	9
Fort McHenry	39 17	76 35	36	41.43	31.66	42.31	54.16	60.60	76.63	78.02	74.75	67.54	10
Fort Monroe	37 0	76 18	8	46.94	37.63	44.40	56.91	63.93	76.54	79.39	78.50	74.31	11
Fort Moultrie	32 45	79 51	25	55.51	48.91	54.52	65.74	72.22	79.28	81.81	81.82	74.31	12
Key West Barracks	24 32	81 48	10	73.35	70.91	71.65	76.33	79.19	79.91	83.68	84.69	81.00	13
Fort Capron	27 30	80 20	30	69.03	66.19	66.10	72.22	77.74	.....	.....	.....	.....	14
Fort Myers	26 38	82 0	50	67.82	65.89	66.16	74.22	78.98	81.39	.....	.....	.....	15
Fort Dallas	25 55	80 20	20	73.32	60.71	69.11	74.87	46.50	.....	.....	.....	.....	16
Fort Deynaud	26 30	81 30	.....	.....	64.93	64.93	72.01	.....	.....	.....	.....	.....	17
Mount Vernon Arsenal	31 12	88 2	200?	56.24	50.69	60.35	66.34	73.73	78.36	81.36	80.17	76.04	18
Barrancas Barracks	30 18	87 27	20	.....	.....	.....	.....	.....	81.23	82.67	81.27	77.51	19
Fort Brooke	28 0	82 28	20	63.90	60.57	61.36	70.31	76.35	78.35	80.52	.....	.....	20
New Orleans	29 57	90 0	10	59.96	56.23	64.41	71.50	77.05	81.07	83.57	83.93	79.96	21
Baton Rouge	30 26	91 18	41	58.34	53.66	63.84	68.06	75.32	78.71	81.42	.....	.....	22
Fort Washita	34 14	96 38	645	47.57	.....	.....	.....	.....	.....	.....	.....	.....	23
Jefferson Barracks	38 28	90 15	472	40.31	27.50	48.89	57.67	63.48	75.34	81.47	79.82	71.24	24
Newport Barracks	39 5	84 29	500	40.49	27.96	42.25	55.40	62.91	74.74	78.41	75.37	68.18	25
Fort Mackinac	45 51	84 33	728	.....	.....	.....	.....	.....	.....	64.42	65.84	56.12	26
Fort Snelling	44 53	93 10	829	.....	12.01	37.49	43.06	.....	.....	.....	.....	.....	27
Fort Ripley	46 19	94 19	1,130	18.04	7.55	34.21	41.31	53.67	71.78	71.55	68.76	56.86	28
Fort Ridgely	44 15	94 48	....	23.08	12.34	37.67	41.72	53.02	70.08	71.11	68.57	58.35	29
Fort Randall	43 1	98 12	1,245	28.07	11.31	41.80	46.62	55.44	74.12	77.56	72.98	63.92	30
Fort Leavenworth	39 21	94 44	896	40.14	25.62	50.12	53.37	60.91	76.23	83.05	79.82	72.97	31
Fort Riley	39 0	96 30	1,000?	38.61	25.96	50.13	54.42	61.25	74.33	79.80	75.36	71.68	32
Fort Kearny	40 38	98 57	2,360	30.27	17.68	42.31	46.69	54.98	71.42	76.13	71.44	63.57	33
Fort Laramie	42 12	104 31	4,519	32.59	27.87	41.45	49.46	50.92	70.12	72.93	70.67	60.38	34
Fort Arbuckle	34 27	97 9	1,000?	44.19	.....	.....	.....	.....	.....	.....	.....	.....	35
Fort Belknap	33 8	98 48	1,600?	45.89	.....	.....	.....	.....	.....	86.61	85.34	81.27	36
Fort Chadbourne	32 2	100 5	2,120	45.60	45.36	58.57	65 12	71.16	77.51	84.87	81.35	76.01	37
Fort McKavett	30 55	100 5	2,060	49.84	47.54	59.12	65.14	71.13	76.36	82.03	79.17	73.30	38
San Antonio	29 25	98 25	600	27.00	55.88	65.08	72.83	78.67	81.04	86.26	84.68	78.44	39
Camp Hudson	30 5	101 7	.....	.....	.....	.....	.....	77.20	77.64	85.70	82.26	76.88	40
Fort Mason	30 50	99 10	.....	51.26	49.79	62.16	67.13	74.27	78.14	84.55	83.50	77.95	41
Fort Brown	25 53	97 26	50	61.96	60.07	69.73	75.45	79.82	82.81	84.64	84.81	80.05	42
Fort Lancaster	30 42	101 25	2,350	46.81	47.82	61.17	68.54	75.92	77.09	84.14	80.79	75.02	43
Ringgold Barracks	26 23	98 47	521	57.13	58.20	71.01	78.02	84.72	85.75	87.91	85.69	80.74	44
Camp Verde	30 0	99 10	1,400	.....	44.34	54.98	64.04	70.66	77.00	79.27	77.92	63.96	45
Fort McIntosh	27 30	99 29	896	57.82	58.84	72.20	77.03	83.06	83.45	88.79	87.25	82.87	46
Camp Colorado	31 55	99 17	.....	.....	46.75	60.45	66.71	72.58	78.97	85.32	83.34	76.88	47
Fort Clark	29 17	100 25	1,000?	54.02	54.90	65.24	73.19	79.31	80.02	87.05	83.54	79.10	48
Fort Duncan	28 42	100 30	1,460	56.47	57.34	69.37	76 82	82.37	81.80	88.76	88.05	81.26	49
Fort Davis	39 26	103 37	4,700	46.21	48.92	57.91	64.74	72.95	74.66	75 35	75.81	72.89	50

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1858.

	Oct.	Nov.	Dec.	Spring	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
1	.....	.....	.....	40 45	66.95	.....	.....	.....	93	— 1	94	Augusta, Maine.
2	54.95	37.60	31.00	44.07	69.16	51.97	29.31	48.60	93	9	84	Boston harbor, Massachusetts.
3	54.85	38.76	33.40	.....	67.51	52.33	31.70	.....	81	10	71	Newport, Rhode Island.
4	56.68	39.24	33.18	45.62	72.25	53.60	31.61	50.70	88	10	78	New York harbor, New York.
5	56.56	40.09	32.87	46.33	72.85	53.98	30.88	51.01	91	18	73	New York harbor, New York.
6	58.83	41.87	34.59	49.78	73.34	56.20	33.39	53.18	88	13	75	West Point, New York.
7	55.44	38.79	38.62	49.65	73.92	52.45	33.83	52.48	92	7	85	Pittsburg, Pennsylvania.
8	55.62	38.63	33.15	49.77	74.30	52.41	31.35	51.96	93	15	78	Carlisle, Pennsylvania.
9	59.63	41.92	35.86	46.98	77.07	57.19	34.48	53.93	95	18	77	Near Newcastle, Delaware.
10	59.11	42.89	40.26	52.36	76.46	56.51	37.78	55.78	94	19	75	Near Baltimore, Maryland.
11	64.38	49.10	47.15	55.11	78.14	62.60	43.91	59.94	91	28	63	Old Point Comfort, Virginia.
12	70.07	52.59	56.09	64.16	80.97	65.66	53.50	66.07	96	34	62	Charleston harbor, South Carolina.
13	79.35	72.54	75.55	79.06	82.76	77.96	73.27	78.26	90	63	27	Key West, Florida.
14	.....	.....	.....	72.02	.....	.....	.....	.....	.....	.....	.....	Indian river, Florida.
15	.....	.....	.....	73.12	.....	.....	.....	.....	.....	.....	.....	Charlotte's harbor, Florida.
16	.....	.....	.....	63.49	.....	.....	.....	.....	.....	.....	.....	Miami river, Florida.
17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Caloosa Hatchee river, Florida.
18	70.90	49.97	56.65	66.81	79.96	65.63	54.52	66.73	96	31	65	Mount Vernon, Alabama.
19	72.73	52.47	59.66	.....	81.72	67.57	.....	.....	91	37	54	Pensacola, Florida.
20	.....	.....	.....	69.34	.....	.....	.....	.....	91	47	44	Tampa Bay, Florida.
21	74.96	54.73	61.47	70.99	82.86	69.88	59.22	55.74	90	41	49	New Orleans, Louisiana.
22	67.94	47.72	58.52	69.07	.....	.....	56.84	.....	91	32	59	Baton Rouge, Louisiana.
23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Near Washita river, Chickasaw Nation
24	58.29	37.40	36.35	56.68	78.88	55.64	34.72	56.78	102	11	91	Near St. Louis, Missouri.
25	58.74	39.67	41.51	51.52	76.17	55.53	36.65	55.47	93	15	78	Newport, Kentucky.
26	47.60	31.81	34.43	.....	.....	45.18	.....	.....	83	8	75	Island of Mackinac, Michigan.
27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mouth of St. Peter's river, Minnesota.
28	44.32	24.77	11.96	43.06	70.69	41.98	12.52	42.06	92	—27	119	Upper Mississippi river, Minnesota.
29	46.32	27.96	15.64	44.13	69.92	44.21	17.02	43.82	92	—16	108	St. Peter's river, Minnesota.
30	46.38	30.02	19.78	47.95	74.89	46.77	19.72	47.33	104	—15	119	Missouri river, Nebraska.
31	59.32	35.66	31.94	54.80	79.03	55.78	32.57	55.54	99	— 5	104	Missouri river, Kansas.
32	58.03	34.56	28.03	55.27	76.49	54.75	30.87	54.34	95	—12	107	Kansas river, Kansas.
33	49.77	32.25	25.58	47.99	72.99	48.53	24.51	48.25	97	—12	109	Platte river, Nebraska.
34	45.64	33.82	26.02	47.27	71.24	49.95	28.83	49.32	91	—29	120	Laramie and Platte rivers, Nebraska.
35	.....	.....	41.09	.....	.....	.....	.....	.....	.....	.....	.....	Near Washita river, Indian Territory.
36	68.33	43.76	41.37	.....	.....	64.45	.. ..	.....	97	12	85	Red Fork of Brazos river, Texas.
37	67.68	46.43	44.48	64.95	81.31	63.37	45.14	63.69	103	12	91	Oak creek, (Colorado river,) Texas.
38	68.34	48.86	48.55	65.13	79.19	63.50	47.97	63.94	97	14	83	San Saba river, Texas.
39	76.77	55.43	51.81	72.53	84.26	70.21	44.89	67.97	99	26	73	San Antonio, Texas.
40	72.52	52.70	51.17	.....	81.97	67.37	.....	.....	102	22	80	San Pedro river, Texas.
41	73.20	55.86	52.51	67.85	82.06	69.00	51.18	67.52	98	22	76	Llano river, Texas.
42	77.88	62.89	63.43	75.00	84.08	73.61	61.82	73.63	98	37	61	Brownsville, Texas.
43	68.48	49.33	47.38	68.54	80.67	64.28	47.34	64.21	100	14	86	Live Oak creek, (Pecos river,) Texas.
44	79.32	59.38	57.95	77.92	46.45	70.48	57.79	63.16	107	31	76	Rio Grande, Texas.
45	71.31	49.53	50.29	62.23	78.06	61.60	.....	.....	101	19	82	Verde creek, Gaudalupe river, Texas.
46	78.84	59.43	57 38	77.43	86.49	73.71	58.01	73.91	101	30	71	Rio Grande, Texas.
47	69.67	49.04	48.15	69.91	82.54	65.20	.....	.....	106	19	87	Muke-water creek, Colorado river, Texas.
48	75.50	55.15	52.36	72.58	83.53	69.92	53.76	69.95	103	26	77	Rio Las Moras, Texas.
49	78.98	62.19	57.11	76.19	86.20	74.14	56.97	73.38	106	33	73	Rio Grande, Texas.
50	65.63	49.29	44.99	65.20	75.27	62.60	46.71	62.44	98	20	78	Limpia river, Texas.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept	
	° ′	° ′	*Feet.*										
Fort Bliss	31 46	106 40	.....	44.77	48.57	57.23	65.55	74.73	81.28	82.19	75.81	73.86	51
Fort Buchanan	31 40	111 35	5,330	39.17	45.36	47.35	59.56	66.51	74.66	75.62	73.18	70.16	52
Fort Thorn	32 47	107 21	4,500	35.41	41.30	49.19	59.56	66.45	75.11	79.36	76.70	68.35	53
Fort Fillmore	32 14	106 15	3,937	40.04	46.40	53.37	66.79	70.70	80.77	82.74	80.78	76.65	54
Fort Craig	33 26	107 8	4,576	35.81	44.81	47.51	60.80	68.47	77.84	79.33	75.74	72.29	55
Fort Stanton	33 30	105 38	.....	31.15	35.11	40.21	50.42	55.98	62.43	63.78	60.10	56.55	56
Albuquerque	35 6	106 38	5,032	35.00	39.40	46.82	53.88	60.93	67.83	75.82	71.87	65.10	57
Fort Marcy	35 41	106 2	6,846	35.00	33.53	40.05	48.09	57.60	66.42	69.24	66.08	62.98	58
Fort Union	35 54	104 57	6,670	28.52	34.08	40.07	48.26	57.47	67.14	70.44	66.30	62.27	59
Cantonment Burgwin	36 26	105 26	.....	18.82	30.94	37.78	45.22	53.88	62.45	67.34	60.43	60.65	60
Fort Garland	37 32	105 40	8,100	.....	.....	.....	.....	.....	.....	.....	.....	56.19	61
Fort Massachusetts	37 32	105 23	8,365	13.28	20.09	30.32	41.16	49.52	61.59	67.88	.....	.....	62
Fort Defiance	35 44	109 15	6,500	13.28	31.91	38.95	48.37	56.75	66.88	70.80	66.55	61.55	63
Fort Yuma	32 32	114 36	355	55.12	64.05	65.00	74.15	82 88	89.28	95.98	91.72	90.71	64
San Diego	32 42	117 14	150	49.67	55.10	54.64	59.03	64.65	69.00	72.32	73.03	70.63	65
Fort Tejon	34 55	118 53	.....	43.27	43.38	45.25	54.03	59.88	70.19	76.65	74 21	71.08	66
Fort Miller	37 0	119 40	402	43.03	49.74	54.51	63.26	71.05	80.19	.....	.....	.....	67
Fort Crook	41 10	120 20	3,500?	29.01	37.18	41.13	49.01	55.08	65.46	70.96	70.55	64.81	68
San Francisco	37 48	122 26	150	47.73	52.83	52.11	53.06	55.03	56.84	56.70	58.46	59.52	69
Benicia Barracks	38 3	122 8	64	47.22	53.80	54.25	61.13	66.46	67.78	69.01	67.27	67.59	70
Fort Humboldt	40 46	124 9	50	45.48	49.88	49.13	50.74	54.65	57.71	56.65	57.54	56.60	71
Fort Jones	41 36	122 52	2,570	32.49	41.09	44.55	54.96	59.67	74.00	.....	.....	.....	72
Fort Umpqua	43 42	124 9	8?	46.13	47.86	48.94	51.54	55.91	58.98	59.04	60.58	59.30	73
Fort Hoskins	44 37	123 18	.....	40.08	42.37	46.19	52.87	56.49	63.42	64.33	66.72	61.30	74
Block House	44 25	123 20	.....	.....	.....	45.42	48.85	53.90	59.02	59.76	60.58	59.15	75
Fort Yamhill	45 5	123 32	.....	38.43	40.55	43.55	48.11	52.87	56.58	59.49	61.94	59.43	76
Fort Dalles	45 36	120 55	350	36.78	38.33	46.50	54.29	60.21	67.92	71.85	72.78	65.27	77
Fort Walla-Walla	46 3	118 20	.....	34.03	33.89	42.77	50.76	62.03	71.30	75.96	73.96	66.86	78
Fort Vancouver	45 40	122 30	50	39.45	39.03	45.74	50.80	56.93	65.37	65.81	67.61	62.79	79
Fort Steilacoom	47 10	122 25	300	37.99	36.58	44.16	48.56	54.66	61.37	60.68	62.21	58.60	80
Fort Bellingham	48 45	122 30	88	40.96	37.31	45.13	48.12	54.41	59.64	60.87	62.21	58.62	81
Fort Simcoe	46 14	120 40	.....	31.90	31.55	42.42	52.21	60.21	68.09	73.71	74.68	68.14	82
Fort Cascades	45 30	121 30	.....	.....	.....	.....	.....	57.35	64.96	65.48	67.35	62.20	83
Camp Scott	41 18	110 32	.....	18.38	26.98	34.52	42.24	46.50	53.54	.....	.....	.....	84
Fort Bridger	41 20	110 23	6,656	.....	.....	.....	.....	.....	.....	64.66	64.76	57.52	85
Camp Floyd	40 13	112 08	4,860	.....	.....	.....	.....	.....	.....	71.97	71.42	60.49	86

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1858.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
51	65.93	51.95	40.92	65.83	79.76	63.91	44.75	63.56	100	20	80	Opposite El Paso, (Rio Grande,) Texas.
52	59.04	45.65	38.61	57.81	74.49	58.43	41.05	57.94	102	15	87	Arizona.
53	55.68	42.59	39.30	58.40	77.06	55.54	38.67	57.42	105	7	98	Southern New Mexico
54	66.26	47.54	40.02	63.62	81.43	63.48	42.15	62.67	100	10	90	Southern New Mexico.
55	60.61	44.80	33.39	58.94	77.63	59.23	38.00	58.45	93	9	84	Southern New Mexico.
56	47 82	33.92	31.24	48.87	62.10	46.10	32.50	47.39	83	0	83	Eastern New Mexico.
57	56.73	43.13	29.07	53.87	71.84	54.99	34.49	53.80	100	— 2	102	Albuquerque, New Mexico.
58	49.31	34.37	24.07	48.58	67.58	48.89	31.20	49.06	85	0	85	Santa Fé, New Mexico.
59	48.98	35.17	26.98	48.60	67.96	48.81	29.86	48.56	92	— 4	96	Northern New Mexico.
60	42.06	27.37	15.34	45.62	63.41	43.36	21.70	43.52	85	—18	103	Northern New Mexico.
61	42.24	28.52	9.66	.....	.....	42.32	.....	.....	.....	.....	.....	Northern New Mexico.
62	.....	.....	.....	40.33	.....	.....	.....	.....	85	—19	104	Northern New Mexico.
63	46.98	35.99	21.70	48.02	68.08	48.72	22.30	46.78	87	—13	100	Western New Mexico.
64	76.65	64.18	52.72	74.01	92.33	77.18	57.29	75.20	114	34	80	Colorado river, California.
65	64.87	57.90	53.03	59.04	71.45	64.47	52.60	61.99	92	37	55	San Diego, California.
66	54.74	51.83	40.48	53.05	73.68	62.55	42.38	57.91	97	26	71	San Joaquin valley, California.
67	.....	.....	.....	62.94	.....	.....	.....	.....	.....	.....	.....	San Joaquin valley, California.
68	48.15	41.46	23.31	48.41	68.99	51.47	29.83	49.68	103	—17	120	Pitt river valley, California.
69	57.53	54.60	46.11	53.40	57.26	57.23	48.89	54.19	68	35	33	San Francisco, California.
70	60.88	56.57	44.38	60.61	68.02	61.65	48.43	59.68	100	28	72	Benicia, California.
71	52.20	50.62	44.64	51.51	57.30	53.14	46.67	52.15	65	29	36	Humboldt bay, California.
72	.....	.....	.....	53.06	.....	.....	.....	.....	.....	10	.....	Scott's valley, California.
73	54.29	52.73	44.16	52.16	59.53	55.44	46.05	53.29	78	23	55	Umpqua City, Oregon.
74	48.42	47.68	37.94	51.85	64.82	52.46	40.13	52.31	100	9	91	South Fork of Yamhill river, Oregon.
75	49.36	49.08	38.96	49.42	59.78	52.53	.....	.....	91	10	81	Siletz river, Oregon.
76	47.84	43.93	35.81	48.18	59.34	50.40	38.26	49.04	94	10	84	Yamhill river, Oregon.
77	49.91	42.82	33.94	53.67	70.85	52.67	36.15	53.33	98	— 6	104	Columbia river, Oregon.
78	51.39	42.66	30.49	55.19	73.41	53.64	52 80	56.26	103	— 4	107	Walla-Walla valley, Oregon.
79	49.40	46.84	37.44	51.19	66.26	53.01	38.64	52.28	98	8	90	Columbia river, Washington.
80	46.86	44.31	37.71	49.13	61.42	49.96	37.45	49.49	88	11	77	Puget's Sound, Washington.
81	48.12	45.23	37.04	49.22	60.91	47.32	38.44	48.99	84	12	72	Bellingham bay, Washington.
82	48.64	41.68	29.07	58.28	72.16	52.82	30.84	53.52	99	1	98	Yakima Reservation, Washington.
83	49.56	45.25	34.65	.....	65.93	52.33	.....	.....	92	9	83	Columbia river, Washington.
84	.....	.....	.....	40.75	.....	.....	.....	.....	.....	.....	.....	Utah Territory.
85	40.57	30.29	14.80	.....	.....	42.79	.....	.....	84	—20	104	Utah Territory.
86	45.05	37.31	23.83	.....	.....	47.61	.....	.....	90	.....	.....	Utah Territory.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	
	° ′	° ′	*Feet.*										
Fort Independence	42 20	71 0	50	27.31	29.79	39.32	43.52	57.07	62.95	70.10	69.27	59.48	1
Fort Adams	41 29	71 20	40	29.30	32.37	39.58	44.24	55.66	62.96	69.54	68.93	60.78	2
Fort Hamilton	40 37	74 2	25	30.20	32.40	42.28	45.39	58.98	65.67	71.87	70.26	62.25	3
Fort Columbus	40 42	74 1	23	29.50	33.14	43.90	48.30	60.96	67.33	73.19	72.64	63.76	4
West Point	41 23	74 0	167	32.25	36.06	46.40	56.78	64.13	68.87	73.80	73.04	64.16	5
Alleghany Arsenal	40 32	80 2	704	31.30	34.24	45.88	49.56	65.64	66.82	74.97	69.98	62.75	6
Carlisle Barracks	40 12	77 14	500	28.64	33.38	44.96	49.42	64.20	68.43	74.32	71.89	63.89	7
Fort Delaware	39 35	75 34	10	35.07	35.68	45.35	47.50	66.30	.....	.....	.....	.....	8
Fort McHenry	39 17	76 35	36	36.49	39.29	49.37	52.03	64.07	66.24	.....	.....	.....	9
Fort Monroe	37 0	76 18	8	42.61	.....	55.18	56.94	65.30	73.94	77.42	76.38	73.09	10
Fort Moultrie	32 45	79 51	25	49.36	53.80	61.08	64.50	71.25	77.73	79.77	78.13	76.42	11
Key West Barracks	24 32	81 48	10	68.95	73.89	77.96	78.65	80.58	83.36	84.13	84.40	84.12	12
Mount Vernon Arsenal	31 12	88 2	200?	48.95	57.67	62.42	65.01	75.33	78.65	80.98	79.63	76.34	13
Barrancas Barracks	30 18	87 27	20	50.75	58.84	62.71	65.41	74.60	79.80	81.72	86.04	78.15	14
New Orleans	29 57	90 0	10	53.91	63.40	66.48	70.43	79.10	82.11	83.35	82.50	80.43	15
Baton Rouge	30 26	91 18	41	51.11	60.81	63.60	66.45	76.79	80.65	82.63	81.72	78.47	16
Fort Washita	34 14	96 38	645	.....	52.22	58.89	61.83	73.56	.....	.....	.....	.....	17
Fort Smith	35 23	94 29	460	.....	48.09	54.20	59.60	72.38	75.11	81.41	78.76	72.35	18
Jefferson Barracks	38 28	90 15	472	28.62	36.98	51.65	55.35	71.35	73.43	81.33	78.09	67.49	19
Newport Barracks	39 5	84 29	500	33.24	38.57	50.70	52 50	68.48	71.13	78.35	73.53	66.53	20
Fort Mackinac	45 51	84 33	728	19.70	19.42	31.64	36.19	51.26	56.14	65.98	66.81	54.00	21
Fort Ripley	46 19	94 19	1,130	7.83	14.19	30.04	36.03	55.89	63.03	76.54	67.65	57.25	22
Fort Ridgely	44 15	94 48	.....	13.94	15.18	31.01	37.03	59.26	65.63	75.48	71.90	60.53	23
Fort Randall	43 1	98 12	1,245	22.94	20.68	33.86	39.98	61.55	70.63	82.32	73.29	62.34	24
Fort Leavenworth	39 21	94 44	896	32.65	32.51	46.96	49.27	66.39	72.94	79.81	75.62	66.25	25
Fort Riley	39 0	96 30	1,000?	33.06	34.39	47.88	51.18	67.33	75.18	83.25	79.03	69.81	26
Fort Kearny	40 38	98 57	2,360	28.64	28.77	39.03	44.37	62.87	71.32	79.74	71.70	60.72	27
Fort Laramie	42 12	104 31	4,519	29.60	33.13	37.07	42.51	56.03	72.89	79.94	73.04	56.74	28
Fort Arbuckle	34 27	97 9	1,000?	41.74	51.08	56.83	60.11	73.19	77.93	83.88	83.05	71.87	29
Fort Chadbourne	32 2	100 5	2,120	42.92	55.47	57.49	63.51	75.56	83.24	84.76	85.33	72.59	30
Fort McKavett	30 55	100 5	2,060	46.70	57.64	58.36	.....	.....	.....	.....	.....	.....	31
Fort Quitman	30 40	105 0	3,710?	37.19	48.67	51.30	60.34	74.11	86.94	80.96	82.43	73.28	32
San Antonio	29 25	98 25	600	49.36	63.03	65.43	67.73	77.48	83.96	85.40	85.57	80.03	33
Camp Stockton	30 20	.....	.....	.....	.....	.....	.....	.....	.....	85.32	85.63	73.33	34
Camp Hudson	30 5	101 7	.....	47.17	61.38	64.68	70.48	80.42	86.59	85.50	85.57	79.35	35
Fort Lancaster	30 42	101 25	2,350	45.61	58.70	61 22	68.46	80.74	85.76	86.47	87.58	76.47	36
Camp Verde	30 0	99 10	1,400	46.26	58.55	61.11	66.63	76.84	80.68	81.40	83.99	76.18	37
Camp Colorado	31 55	99 17	.....	46.49	57.74	60.24	66.22	77.69	84.13	85.81	85.84	73.93	38
Camp Cooper	31 1	99 0	.....	.....	.....	.....	.....	77.46	84.08	87.87	.....	75.50	39
Fort Inge	29 10	99 47	845	48.91	62.54	65.88	71.96	82.18	86.36	88.21	89.62	80.77	40
Fort Clark	29 17	100 25	1,000?	51.34	61.41	66.04	71.78	81.94	86.35	85.77	88.10	79.28	41
Fort Duncan	28 42	100 30	1,460	56.06	64.58	70.31	75.44	.....	.....	.....	.....	.....	42
Fort Davis	30 26	103 37	4,700	43.36	54.81	57.64	62 67	75.89	80.14	75.60	78.00	69.06	43
Fort Bliss	31 46	106 40	.....	41.98	53.48	54.65	59.52	73.13	82.67	79.82	82.25	75.45	44
Fort Buchanan	31 40	111 35	5,330	40.63	46.35	46.44	53.63	66.34	80.25	72.26	74.28	70.44	45
Fort Fillmore	32 14	106 15	3,937	35.07	51.05	52.27	63.06	76.77	85.89	78.11	83.88	74.91	46
Fort Craig	33 26	107 8	4,576	35.12	47.92	49.65	56.69	71.47	80.01	79.14	77.70	68.01	47
Fort Stanton	33 30	105 38	.....	34.32	43.91	44.66	49.01	64.10	71.17	69.54	70.22	61.01	48
Fort Albuquerque	35 6	108 38	5,032	32.42	41.83	43.42	55.36	66.56	72.72	72.67	72.75	63.91	49
Fort Marcy	35 41	106 2	6,846	23.91	32.59	35.51	43.61	58.21	70.34	69.32	68.93	57.90	50

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1859.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
1	47.48	41.67	25.99	46.97	67.47	49.54	27.69	47.92	88	—10	98	Boston harbor, Massachusetts.
2	49.14	.....	.....	46.49	67.14	.....	.....	.....	84	— 5	89	Newport, Rhode Island.
3	49.81	44.54	28.89	48.88	69.27	52.20	30.50	50.21	92	1	91	New York harbor, New York.
4	56.46	45.40	29.96	51.09	71.05	56.54	30.87	52.39	91	3	88	New York harbor, New York.
5	53.96	48.32	31.55	53.77	71.90	55.48	33.62	53.69	88	— 9	97	West Point, New York.
6	.....	42.03	29.20	53.69	70.59	.....	31.58	.....	93	0	93	Pittsburg, Pennsylvania.
7	49.87	42.08	.....	52.86	71.54	52.28	.....	.....	97	0	97	Carlisle, Pennsylvania.
8	.....	.....	.....	53.05	.....	.....	.....	.....	.....	0	.....	Near Newcastle, Delaware.
9	.....	.....	.....	55.16	.....	.....	.....	.....	.....	5	.....	Near Baltimore, Maryland.
10	59.60	55.27	44.11	59.14	75.91	62.65	.....	.....	94	19	75	Old Point Comfort, Virginia.
11	66.00	59.78	52.97	68.94	78.54	67.40	52.04	66.73	95	25	70	Charleston harbor, South Carolina.
12	80.40	72.85	69.98	79.06	83.96	79.12	70.94	78.27	90	59	31	Key West, Florida.
13	65.23	60.98	48.39	67.58	79.75	67.51	51.67	66.63	92	14	78	Mount Vernon, Alabama.
14	67.08	61.54	51.25	67.57	80.52	68.92	53.61	67.65	96	22	74	Pensacola, Florida.
15	70.74	65.67	53.65	72.01	82.97	72.28	57.02	71.07	91	32	59	New Orleans, Louisiana.
16	67.00	.....	.....	68.95	81.67	.....	.....	.....	94	26	68	Baton Rouge, Louisiana.
17	.....	58.94	33.53	64.76	.....	.....	.....	.....	.....	2	.....	Near Washita river, Chickasaw Nation.
18	65.54	55.74	31.06	62.06	78.46	64.54	.....	.....	96	1	95	Arkansas river, Arkansas.
19	55.91	49.39	25.33	59.45	77.62	57.59	30.31	56.24	100	— 5	105	Near St. Louis, Missouri.
20	52.64	46.54	27.54	57.23	74.34	55.24	33.12	54.98	97	— 4	101	Newport, Kentucky.
21	41.73	34.43	16.23	39.69	62.98	43.38	18.45	41.12	86	—25	111	Island of Mackinac, Michigan.
22	40.95	27.73	.52	40.65	69.07	41.98	7.51	39.80	95	—38	133	Upper Mississippi river, Minnesota.
23	46.93	31.26	6.35	42.43	71.00	69.57	11.82	43.70	99	—17	116	St. Peter's river, Minnesota.
24	49.47	32.66	11.47	45.13	75.41	48.32	18.36	46.80	108	—18	126	Missouri river, Nebraska.
25	53.93	44.02	18.87	54.20	76.15	54.73	27.99	53.27	98	— 5	103	Missouri river, Kansas.
26	48.10	44.77	21.33	55.46	79.15	54.26	29.59	54.61	106	2	104	Kansas river, Kansas.
27	49.80	39.38	18.84	48.76	74.25	49.96	25.42	49.79	99	—11	110	Platte river, Nebraska.
28	54.41	34.46	21.98	45.20	75.29	48.54	28.23	49.31	100	1	99	Laramie and Platte rivers, Nebraska.
29	62.73	57.92	32.36	63.37	81.62	64.17	41.72	62.72	102	0	102	Near Washita river, Indian Territory.
30	62.86	58.12	35.87	65.52	84.44	64.52	44.75	64.86	104	5	99	Oak creek, (Colorado river,) Texas.
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	San Saba river, Texas.
32	62.66	51.31	35.52	61.92	82.78	62.42	40.46	61.89	98	— 2	100	Upper Rio Grande, Texas.
33	73.23	66.39	46.29	69.88	84.98	73.22	52.89	70.24	103	17	86	San Antonio, Texas.
34	63.22	60.44	39.04	.....	.....	65.66	.....	.....	105	— 9	114	
35	68.66	61.89	43.93	71.86	85.88	69.97	50.82	69.64	103	15	88	San Pedro river, Texas.
36	65.83	58.67	38.93	70.14	86.60	69.99	47.75	67.37	105	10	95	Live Oak creek, (Pecos river,) Texas.
37	63.37	62.64	42.80	68.19	82.02	67.39	49.20	66.70	100	12	88	Verde creek, (Gaudalupe river,) Texas.
38	63.96	59.00	35.88	68.05	85.26	65.63	46.70	73.91	100	9	91	Muke-water creek,(Colorado river,)Texas.
39	65.44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Clear Fork of Brazos river, Texas.
40	68.86	63.70	44.36	76.67	88.09	71.11	51.93	71.95	106	19	87	Leona river, Texas.
41	69.68	63.86	41.87	73.25	86.74	70.94	51.54	70.62	102	19	83	Rio Las Moras, Texas.
42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rio Grande, Texas.
43	60.05	55 80	39.87	65.40	77.91	61.63	49.35	63.57	93	13	80	Limpia river, Texas.
44	66.64	57.33	41.49	62.43	51.58	66.47	45.65	56.51	99	12	87	Opposite El Paso, (Rio Grande,) Texas.
45	61.44	49.58	37.51	55.47	75.59	60.48	41.53	58.02	91	17	74	Arizona.
46	66.20	40.77	33.89	64.02	82.62	60.62	39.01	61.56	100	0	100	Southern New Mexico.
47	58.16	48.75	31.73	59.27	78.95	58.31	38.25	58.69	93	8	85	Southern New Mexico.
48	51.05	44.89	29.66	52.52	70.64	55.65	35.99	53.70	83	7	76	Eastern New Mexico.
49	52.55	35.27	17.56	55.11	72.71	50.58	30.60	52.32	100	0	100	Albuquerque, New Mexico.
50	50.65	38.10	23.54	45.77	69.56	48.88	26.68	47.72	84	— 4	88	Santa Fé, New Mexico.

POSITION OF STATIONS, MEAN TEMPERATURE

Stations.	Lat.	Long.	Altitude	Jan.	Feb.	Mar.	April	May.	June	July.	Aug	Sept	
	° ′	° ′	*Feet.*										
Fort Union	35 54	104 57	6,670	27.28	36.21	36.82	43.52	59.88	69.65	70.07	66.35	56.21	51
Cantonment Burgwin	36 26	105 26	.....	19.52	33.47	32.40	40.93	55.93	66.80	64.96	64.62	56.15	52
Fort Garland	37 32	105 40	8,100	7.09	24.63	25.55	38.36	51.48	64.41	66.47	61.81	51.96	53
Fort Defiance	35 44	109 15	6,500	19.55	35.08	35.93	43.50	57.60	71.36	69.54	67.23	57.44	54
Fort Mojave	35 6	114 31	.....	.....	.....	.....	.....	.....	.....	.....	93.36	84.66	55
Fort Yuma	32 32	114 36	355	55.55	62.98	62.78	68.22	78.77	93.04	92.82	91.66	85.58	56
San Diego	32 42	117 14	150	.....	.....	.....	.....	.....	68.90	71.71	69.95	67.78	57
Fort Tejon	34 55	118 53	.....	44.06	.....	42.12	51.01	60.52	77.90	76.56	73.04	66.79	58
Fort Crook	41 10	120 20	3,500?	20.44	31.29	33.12	45.61	56.21	72.61	73.03	67.48	62.00	59
San Francisco	37 48	122 26	150	46.44	49.06	49.72	51.86	55.06	57.98	55.75	56.97	58.29	60
Benicia Barracks	38 3	122 8	64	44.99	49.50	49.93	54.76	58.65	68.10	63.85	63.76	64.41	61
Fort Ter-Waw	41 49	124 12	.....	.....	.....	.....	52.18	54.93	61.34	59.59	59.63	58.68	62
Fort Humboldt	40 46	124 9	50	54.22	47.15	46.02	49.18	52.99	57.84	57.90	58.82	56.86	63
Fort Umpqua	43 42	124 9	8?	44.08	44.68	45.14	49.40	53 01	61.04	58.98	59.38	57.98	64
Fort Yamhill	45 5	123 32	.....	37.38	38 11	40.79	45.94	51.92	62.33	58.12	60.70	57.48	65
Fort Hoskins	44 37	123 18	.....	39.55	46.16	40.32	48.85	54.27	64.14	62.82	63.29	57.63	66
Block House	44 25	123 20	.....	41.23	41.82	41.32	47.22	51.99	60.44	.....	.....	51.17	67
Fort Dalles	45 36	120 55	350	33.38	36.74	41.67	52.26	60.15	70.13	73.81	70.59	63.35	68
Fort Walla-Walla	46 3	118 20	.....	34.70	36.67	43.45	51.63	61.13	76.36	80.29	74.77	65.85	69
Fort Steilacoom	47 10	122 25	300	36.30	36.89	37.78	45.16	50.68	60.01	61.86	60.59	57.56	70
Fort Bellingham	48 45	122 30	88	39.03	38.88	41.47	47.88	53.44	59.42	61.08	.....	.....	71
Fort Simcoe	46 14	120 40	.....	28.72	32.06	39.01	51.89	.....	.....	.....	.....	.....	72
Fort Cascades	45 30	121 30	.....	34.91	36.49	39.84	49.75	55.33	64.47	66.00	64.26	59.65	73
Fort Townsend	48 5	122 46	135	38.31	38.84	40.86	36.16	53.83	59.63	.....	.....	.....	74
Fort Vancouver	45 40	122 30	50	37.20	39.47	41.82	50.30	56.43	65.47	67.27	65.38	60.88	75
Camp Semiahmoo	49 0	122 45	.....	.....	.....	.....	42.31	48.20	56.49	63.40	66.03	63.31	59.27	76
Fort Bridger	41 20	110 23	6,656	.....	19.76	21.86	35.53	47.14	.....	.....	63.73	49.20	77
Camp Floyd	40 13	112 08	4,860	17.69	31.99	33.99	47.42	60.12	78.47	76.43	72.12	58.39	78

MONTHLY, AND EXTREMES OF TEMPERATURE FOR 1859.

	Oct.	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	Locality.
51	48.14	42.16	25.52	46.74	68.69	48.83	29.67	48.48	89	— 8	97	Northern New Mexico.
52	50.50	38.93	23.42	43.08	65.46	48.56	25.47	45.64	83	—10	93	Northern New Mexico.
53	42.77	52.71	15.17	38.46	64.26	42.48	15.63	40.20	90	15	75	Northern New Mexico.
54	48.98	.....	23.08	45.67	69.37	.....	25 90	.....	89	—16	105	Western New Mexico.
55	75.49	60.43	49.34	....	.....	73.52	.....	.....	.....	30	.....	Colorado river, New Mexico.
56	78.19	64 18	54.34	69.92	92 50	75.98	57.62	73.50	109	35	74	Colorado river, California.
57	65.80	60.90	55.26	.....	70.22	64.82	....	.....	83	36	47	San Diego, California.
58	61.89	49.92	43.36	51.22	75.83	62.89	.....	.....	95	29	66	San Joaquin valley, California.
59	53.20	39 15	26.58	44.98	71.04	51.45	26.10	48.39	90	—20	110	Pitt river valley, California.
60	57.42	53.48	48.66	52.21	56.90	56.39	48.05	53.39	75	33	42	San Francisco, California.
61	63.84	54.51	47.16	54.45	65.23	60.95	47.22	54.46	89	30	59	Benicia, California.
62	57.07	49.15	43.68	.....	60 18	54.97	.....	.....	77	30	47	Northern California.
63	53.13	49.16	44.53	49.39	58.18	53.05	48.63	51.81	70	29	41	Humboldt bay, California.
64	53.29	46.10	43.47	49.18	59.80	52.45	44.08	51.38	72	20	52	Umpqua City, Oregon.
65	52.50	38.17	34.72	46.22	60.41	49.38	36.74	48.19	89	7	82	Yamhill river, Oregon.
66	53.64	40.46	36.10	47.81	63.42	50.57	38.60	50.10	93	8	85	South Fork of Yamhill river, Oregon.
67	52 72	42.43	40.43	46.84	.....	50.77	41.43	.....	87	25	62	Siletz river, Oregon.
68	53 19	35.05	25.21	51.36	71.51	50.53	31.78	53.79	99	— 3	102	Columbia river, Oregon.
69	61.48	34.56	22.44	52.07	77.14	53.96	31.27	53.61	107	— 6	113	Walla-Walla valley, Oregon.
70	51.58	37.39	35.65	44.54	64.52	48.84	36.28	48.29	89	10	79	Puget's Sound, Washington.
71	.....	.....	.....	47.59	.....	.....	.....	.....	78	26	52	Bellingham bay, Washington.
72	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	Yakima Reservation, Washington.
73	55.48	39.61	30.34	48.31	64.91	51.58	33.91	49 68	90	—22	112	Columbia river, Washington.
74	.....	.....	.....	43.61	.....	.....	.....	.....	.....	.....	.....	Admiralty Inlet, Washington.
75	53.60	39.58	31 33	49.52	63.37	51.35	36.00	50.06	94	10	84	Columbia river, Washington.
76	51.93	38.83	35 59	49.00	64.91	50.01	.....	.....	81	10	71	Semiahmoo bay, Washington.
77	46.51	30.22	13.30	34.84	.....	41.97	.....	.....	90	—24	114	Utah Territory.
78	50.66	36.27	20.29	47.17	75.67	48.44	23.32	48.65	91	—22	113	Utah Territory.

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1855.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Fort Independence	6.34	3.20	1.16	2.72	1.62	3.18	3.57	1.68	1.52	5.19	2.92	3.68	5.50	8.43	9.63	13.22	36.78
Fort Hamilton	3.71	4.60	1.41	2.45	3.91	5.06	2.34	2.99	.95	4.70	3.15	5.10	7.77	10.39	8.80	13.41	40.37
Fort Columbus	3.30	3.45	1.20	2.40	3.85	3.70	6.00	2.55	1.30	5.50	2.40	8.30	7.45	12.25	9.20	15.05	43.65
West Point	3.63	4.23	.83	2.52	4.16	4.50	6.26	3.10	97	10.25	3.69	5.14	7.51	13.86	5.91	13.00	40.28
Fort Ontario	1.90	1.82	1.20	.70	.72	3.60	5.20	1.65	2.02	3.40	2.25	1.47	2.62	10.45	7.67	5.19	25.93
Alleghany Arsenal	2.15	1.77	3.08	2.60	2.33	7.58	5.57	3.57	4.79	1 54	3.07	3.28	8.01	16.72	11.40	7.20	43.23
Carlisle Barracks	3.37	3.04	1.88	1.72	1.81	5.80	6.07	3.38	5.94	.....	.....	.....	5.41	15.25	.....	.....	.....
Fort Delaware	2.49	1.70	2.02	2.15	2.63	8.59	4.79	2.63	3.70	2.79	1.45	4.62	6.80	16.61	7.94	8.81	39.56
Fort McHenry	2.50	4.00	2.80	.39	.91	2.79	2.62	2.50	2.30	3.70	1.20	3.60	4.10	7.91	7.20	10.10	29.31
Fort Monroe	1.60	.40	2.00	.45	2.10	3.80	1.65	1.80	3.30	.....	.80	3.27	4.55	7.25	.....	5.27	.....
Fort Moultrie	.81	.97	4.83	.96	6.34	7.58	3.59	4.62	3.74	1.51	1.58	7.13	12.13	15.79	6.83	8.91	43.66
Fort Capron	4.81	2.56	2.80	1.14	5.54	5.41	.....	9.21	4.48	2.38	.....	1.61	9.48	.....	.....	8.98	.....
Fort Dallas*	9.01	.20	3.90	3.00	14.69	3.20	11.32	4.70	5.70	7.90	2.90	1.80	21.59	19.22	16.50	11.01	68.32
Fort Myers	3.20	.55	6.41	.50	3.00	10.20	6.80	11.35	5.35	2.95	2.05	2.30	9.91	28.35	10.35	6.05	54.66
Fort Deynaud	.....	1.72	.....	.....	3.56	8.38	7.97	14.27	3.36	2.59	.75	3.03	3.56	30.62	6.70	.....	.....
Key West Barracks	3.94	.83	2.87	.24	3.55	4.47	4.59	6.31	7.95	7.97	5.06	2.89	6.66	15.37	20.78	7.66	50.67
Fort Brooke	2.34	2.88	3.09	.75	1.77	7.07	.....	5.64	1.45	1.10	1.89	2.42	6.41	.....	4.44	7.64	.....
Barrancas Barracks*	1.09	1.44	2.86	1.00	1.92	4.21	18.61	16.14	6.45	2.14	8.40	13.42	5.78	38.96	16.99	15.95	77.68
Mount Vernon Arsenal	.45	1.16	1.17	1.52	.20	2.22	9.85	12.59	10.03	2.17	10.78	7.62	2.89	24.66	22.98	9.23	49.76
New Orleans	.....	2.06	.82	2.00	1.77	1.75	7.24	4.12	4.36	2.10	5.59	8.23	4.59	13.11	12.05	.....	.....
Baton Rouge	.75	2.05	1.07	.40	.60	4.43	3.61	6.64	4.49	5.13	9.75	10.10	2.07	14.68	19.37	12.90	49.02
Fort Washita	1.16	.54	.13	3.47	2.11	2.07	2.39	3.56	1.01	.70	3.58	1.09	5.71	8.02	5.29	2.79	21.81
Fort Smith	3.25	.93	.50	2.99	4.92	3.15	1.56	5.15	3.24	1.47	4.90	1.85	8.41	9.86	9.61	6.03	33.91
Fort Gibson	.93	.48	.57	3.63	5.65	4.85	.74	5.34	4.13	2.35	4.50	2.49	9.85	10.93	10.98	3.90	35.66
Jefferson Barracks	4 99	.93	3.98	1.71	4.70	2.71	7.78	3.48	4.09	4.61	4.50	.....	10.39	13.97	13.20	.....	.....
St. Louis Arsenal	4.20	1.38	7.15	2.18	8.32	4 25	6.05	4.84	3.12	4.25	4.80	3.04	17.65	15.14	12.17	8.62	53.58
Newport Barracks	3.06	.45	2.51	3.32	2.35	9.30	2.55	5.00	8.50	1.37	7.60	4.90	8.18	16.85	17.47	8.41	50.91
Fort Mackinac	4.74	2.03	1.00	1.55	.60	1.76	7.10	5.15	3.63	.89	3.51	1.77	3.15	14.01	8.03	8.54	33.73
Fort Brady	2.13	.65	1.03	1.07	0	1.10	.....	2.59	3.49	.80	1.16	1.68	2.10	2.10	5.45	2.46	.....
Fort Snelling	1.67	.41	1.87	.28	1.23	2.38	1.32	4.41	6.26	.90	2.38	1.67	3.38	8.11	9.54	3.75	24.78
Fort Ripley	.41	.28	1.12	.36	1.68	4.88	4.03	3.58	4.95	.06	1.96	.24	3.16	12.49	6.97	.93	23.55
Fort Ridgely†	4.63	1.58	3.96	.68	2.24	3.21	2.44	6.34	5.10	.80	1.40	2.40	3.75	11.99	7.30	5.44	28.48
Fort Leavenworth	.59	.20	.42	.27	1.98	1.09	1 70	10.18	4.43	.38	2.75	3.56	2.67	12.97	7.56	4.35	27.55
Fort Riley	.61	.25	.51	.63	3.93	5.06	2.15	4.30	6.52	0	1.80	.49	5.07	11.51	8.32	1.39	26.25
Fort Kearny	1.00	.25	1.35	.68	4.91	2.20	3 90	4.69	.....	.18	2.12	1.48	6.94	10.79	.....	2.73	.....
Fort Laramie	.04	1.08	1.41	.65	2.79	3.25	1.45	2.93	3.39	.62	.18	1.20	4.85	7.63	4.19	2.32	18.99
Fort Pierre	.....	.....	.....	.....	.....	.....	.38	3.03	1.88	.42	1.74	.39	.....	.....	4.04	.....	.....
Fort Arbuckle	.20	1.28	.35	2.28	3.13	3.38	3.50	6.76	1.73	.57	5.08	1.43	5.76	13.64	7.38	2.91	29.70
Fort Belknap	0	.78	.10	.30	3.55	3.15	.53	2.12	0	4.00	4.46	.22	3.95	5.80	8.46	1.00	19.21
Fort Chadbourne	1.10	2.50	.15	3.35	6.33	3.31	.....	2.40	1.30	1.26	3.65	0	9.83	.....	6.21	3.60	.....
Fort McKavett	.69	1.00	.08	2.29	2.63	1.19	2.08	2.60	.07	3.43	.72	0	5.00	5.87	4.22	1.09	16.18
Fort Merrill	.35	2.19	.13	.23	1.21	8.75	4.43	6.29	3.18	.59	.25	.....	1.57	19.47	4.02	.....	.....
Corpus Christi	.....	.....	.....	.....	.....	.....	.....	5.09	4.78	.35	.60	.20	.....	.....	5.73	.....	.....
Fort Brown*	3.47	4.83	3.03	0	1.92	10.47	7.58	9.52	9.44	5.77	3.85	.92	4.95	27.57	19.04	9.22	60.78
Ringgold Barracks	1.06	.68	1.43	0	2.40	.....	5.38	6.81	1.56	2.50	.35	0	3.83	.....	4.41	1.74	.....
Fort McIntosh	.25	1.40	.33	.01	2.88	5.18	3.50	3.89	2.95	2.36	.22	.01	3.22	12.57	5.53	1.66	24.98
Fort Inge	10	1.86	.75	.17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Duncan	0	.91	0	.28	1.44	4.50	3.84	2.97	2.16	.57	.50	.15	1.72	11.31	3.23	1.06	17.32
Fort Clark	0	1.96	.45	.30	4.29	4.77	.57	3.76	4.40	1.03	.63	0	5.04	9.10	6.06	1.96	22.16

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1-55.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Fort Davis	0	0	.19	3.58	1.16	.43	4.21	3.33	5.89	.58	1.84	0	4.96	7.97	8.31	[illegible]	21.21
Fort Bliss	0	0	.....	0	.....	.05	.16	1.12	7.22	1.05	1.25	0	.....	1.33	9.52	0	.....
Fort Fillmore	0	0	.....	.45	.10	.07	2.63	1.29	2.31	.09	.45	0	.....	3.99	2.85	0	.....
Fort Thorn	.09	.20	.80	.20	0	0	3.64	1.21	4.97	.39	1.94	0	1.00	4.85	7.39	.29	13.41
Fort Craig	0	0	.12	.10	.10	.21	2.31	.57	2.98	.07	1.43	0	.32	3.09	4.48	0	7.89
Cantonment Burgwin	1.42	.05	.19	.05	.11	.29	.37	2.39	1.43	.....	.83	.49	.35	2.96	2.26	1.96	7.53
Albuquerque	.20	.49	1.02	.74	.59	.....	.....	.....	.....	.....	.77	.....	2.65	.....	.....	.....	.....
Santa Fe	.57	.21	.20	.85	.68	1.77	2.09	7.89	5.38	0	2.69	1.86	1.73	11.75	8.07	2.64	24.19
Fort Union	0	0	.40	0	2.88	2.12	4.37	1.46	3.83	.40	2.21	.91	3.28	7.95	6.43	.91	18.57
Fort Massachusetts	0	.67	1.47	.41	.98	.86	2.60	.....	3.33	0	5.27	.38	2.86	.....	8.60	1.05	.....
Fort Defiance	.83	1.71	3.30	.51	.10	.43	1.54	.....	2.86	0	1.47	1.59	3.91	.....	4.33	4.13	.....
Fort Yuma	.12	1.26	0	0	0	0	.10	0	.....	.22	.10	0	0	.10	.....	1.38	.....
San Diego	2.50	4.83	1.53	1.82	.10	0	0	0	0	.15	2.23	.31	3.45	0	2.38	7.54	13.37
Fort Tejon	.....	.....	1.58	3.78	.61	0	.....	0	.99	.05	0	7.39	5.97	.....	1.04	.....	.....
Fort Miller	1.48	1.39	3.64	4.44	.84	0	0	0	0	0	.30	1.07	8.92	0	.30	3.91	13.16
San Francisco	2.89	2.88	3.23	3.65	1.42	0	0	0	0	0	.88	4.31	8.30	0	.88	10.08	19.27
Benicia Barracks	2.86	2.79	3.13	3.25	2.01	0	.....	0	0	0	.88	2.62	8.39	.....	.88	8.27	.....
Fort Reading	3.69	6.95	5.68	5.17	5.43	.20	.....	0	.60	0	1.33	8.31	16.28	.....	1.93	18.95	.....
Fort Humboldt	3.30	4.45	6.80	5.40	2.80	1.60	0	0	1.36	.52	3.22	9.52	15.00	1.60	5.10	17.27	38.97
Fort Jones	1.58	3.83	5.24	1.50	.87	.08	.....	0	.....	.....	1.77	6.47	7.61	.....	.....	11.88	.....
Fort Orford	7.81	6.04	9.84	5.17	8.69	1.80	.....	.10	4.49	3.52	14.18	20.60	23.61	.....	22.19	33.85	.....
Fort Lane	4.38	1.27	3.26	.98	1.33	1.03	.....	.....	.....	.32	3.37	6.55	5.57	.....	.....	12.20	.....
Fort Vancouver	13.29	3.84	3.99	2.04	3.77	2 43	.....	0	.46	1.41	2.05	10.77	9.80	.....	3.92	27.90	.....
Fort Dalles	3.03	.63	1.87	.17	1.08	.24	.....	0	.69	.15	1.44	2.24	3.12	.....	2.28	5.99	.....
Fort Steilacoom	5.10	8.40	7.85	7.11	5.81	1.40	.....	.06	.....	5.17	11.58	14.62	20.80	.....	.....	28.12	.....

* Although the amounts of rain reported at Fort Dallas, Barranca Barracks, and Fort Brown are unusually great, there is nothing in the original records to warrant the belief that the measurements are incorrect.

† The records of rain at Fort Ridgely from January to May, 1855, inclusive, as here recorded, differ from those reported in the monthly tables; the medical officer in charge having reported errors. R. H. C.

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1856.

Stations.	Jan.	Feb.	Mar.	April.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn	Winter.	Year.
Fort Independence	5.27	1.25	1.47	3.36	5.13	2.65	4.38	9.16	4.20	.....	.....	.....	9.96	16.19	.....	.....	.....
Fort Hamilton	3.65	.38	1.83	4.31	3.42	3.79	2.73	5.50	4.35	.45	2.91	2.95	9.56	12.02	7.71	6.98	36.27
Fort Columbus	5.60	1.25	3.00	2.65	3.65	2.90	2.50	7.60	3.00	1.70	2.40	2.30	9.30	13.00	7.10	9.15	38.65
West Point	2.81	.63	1.68	3.76	6.59	4.13	2.12	11.26	4.52	1.35	2.50	1.76	12.03	17.81	8.38	8.19	47.41
Fort Ontario	4.95	2.90	1.50	.97	2.95	1.70	2.16	1.41	3.37	..	...	...	5.42	5.48	.....	.....	.....
Allegheny Arsenal	2.64	1.80	1.73	2.29	2.52	3.99	2.71	1.60	1.95	2.60	1.97	1.34	6.54	8.30	5.97	5.78	26.59
Carlisle Barracks	1.45	1.50	1.22	3.30	3.35	3.54	3.80	2.50	1.70	2.15	2.16	2.80	7.87	9.89	5.46	13.75	36.97
Fort Delaware	2.22	1.14	1.14	3.33	2.57	2.12	1.90	6.30	3.35	1.10	2.30	1.20	7.04	10.31	6.55	7.56	31.46
Fort McHenry	2.11	.50	2.37	1.48	1.19	.92	1.82	4.88	2.83	.77	1.85	2.65	5.14	7.62	5.45	4.66	22.87
Fort Monroe	1.80	.50	1.70	1.60	1.72	1.55	2.13	6.19	7.60	2.80	2.25	3.63	6.02	12.87	12.72	8.81	40.42
Fort Moultrie	6.89	2.38	5.93	.22	4.14	2.38	3.99	7.54	1.32	2.18	2.25	1.53	10.29	13.91	5.75	10.80	40.75
Fort Capron	8.26	7.62	2.30	.36	5.98	4.41	9.29	6.24	2.80	6.72	2.47	.96	9.26	19.94	11.99	16.84	58.03
Key West Barracks	5.17	4.12	1.90	.63	2.77	2.98	.. ...	2.30	8.45	7.14	2.13	.44	5.30	.....	17.72	9.73	.....
Fort Myers	7.50	7.60	4.25	0	2.15	7.65	12.45	2.84	2.00	1.10	.26	1.23	6.40	22.94	3.36	16.33	49.03
Fort Dallas	8.00	1.50	4.90	2.00	4.70	6.70	4.80	1.20	8.40	10.10	.30	0	11.60	12.70	19.00	9.50	52.80
Fort Brooke	5.28	4.83	.81	0	.....	5.65	12.21	8.30	3.80	.11	.44	1.64	.81	36.19	4.35	11.75	53.10
Fort Deynaud	10.11	5.25	5.26	.79	8.64	.....	.....	.....	.....	.....	1.33	3.00	14.69	.....	.....	18.36	.....
Barrancas Barracks	5.50	1.60	7.12	.10	4.64	6.18	4.42	7.15	2.30	2.86	7.07	4.62	11.86	17.75	12.23	11.72	53.56
Mount Vernon Arsenal	5.46	3.16	5.33	3.53	3.41	9.26	3.19	5.74	1.25	.70	11.25	5.87	12.27	18.19	13.20	14.49	58.15
New Orleans	8.90	3.68	3.73	2.85	2.53	5.79	8.63	16.12	3.20	2.29	4.65	1.75	9.11	30.54	10.14	17.33	67.12
Baton Rouge	6.75	3.70	3.53	3.10	5.48	2.55	7.20	14.05	2.04	4.43	9.13	5.78	12.11	23.80	15.60	16.23	67.74
Fort Washita	2.28	3.44	2.18	2.38	2.57	.31	.77	2.85	4.18	4.20	1.78	2.10	7.13	3.93	10.16	7.82	29.04
Fort Smith	2.02	4.55	1.80	2.10	.81	.99	4.69	.23	1.83	3.59	3.40	3.93	4.45	5.91	8.62	10.50	29.48
Fort Gibson	5.05	5.25	.....	5.70	2.75	1.75	.76	3.50	1.80	6.60	1.20	3.10	.....	6.01	9.60	13.40	.....
Jefferson Barracks	.....	.....	.....	.....	3.95	3.80	2.15	5.93	3.20	2.41	6.07	3.02	.....	11.88	11.68	.....	.....
St. Louis Arsenal	.85	1.90	1.02	3.98	2.30	1.18	3.41	5.74	2.63	1.67	4.05	.....	7.30	10.33	8.35	.....	.....
Newport Barracks	1.23	1.80	.55	.90	1.00	4.65	3.85	1.37	1.97	2.07	3.70	1.61	2.45	9.87	7.74	7.66	27.72
Fort Mackinac	.07	.12	1.21	.83	2.08	2.47	1.73	2.45	2.89	.....	.....	.....	4.12	6.65	.....	.....	.....
Fort Brady	.21	.21	.45	.74	.55	2.47	1.11	2.49	8.36	.....	.....	.....	1.74	6.07	.....	.....	.....
Fort Snelling	.30	.18	.22	4.47	1.62	.76	2.47	1.69	3.24	3.97	1.70	2.01	6.31	4.92	8.91	3.08	22.62
Fort Ripley	.28	.08	.01	4.88	2.01	3.81	4.53	2.11	1.36	3.86	.32	1.68	6.90	10.45	5.94	2.04	25.33
Fort Ridgely	3.14	.45	.17	2.54	1.30	1.46	2.30	1.33	1.00	4.24	.89	4.38	4.01	5.09	6.13	7.97	23.20
Fort Leavenworth	.35	1.07	.11	4.85	3.30	3.56	9.11	6.73	3.22	2.83	3.13	4.55	8.26	19.40	8.18	5.88	42.72
Fort Riley	.17	.84	.68	1.48	1.94	4.55	3.40	4.90	1.10	1.99	1.26	1.93	4.10	12.85	5.05	2.84	24.84
Fort Kearny	.27	.52	.71	3.41	3.18	4.65	5.09	2.14	1.92	3.30	.40	1.35	7.26	11.88	7.52	2.14	29.10
Fort Laramie	.55	.45	1.75	.34	3.51	.82	4.15	2.55	.23	.29	.21	.17	4.60	7.52	.73	1.17	15.02
Fort Pierre	.02	.19	.64	2.68	2.19	.48	1.98	.33	.70	1.75	1.05	.55	5.51	2.49	3.50	.76	12.56
Fort Arbuckle	.66	4.10	2.49	4.16	3.95	1.53	1.77	10.77	6.73	1.20	1.55	3.02	10.60	14.07	9.48	7.78	41.93
Fort Belknap	.27	3.91	2.57	.20	3.42	1.39	3.19	6.85	10.20	1.18	2.19	.55	6.19	11.43	13.57	4.73	35.93
Fort Chadbourne	1.20	1.97	2.27	.20	1.00	.55	.25	3.43	5.89	2.28	.88	.11	3.47	4.23	9.05	3.98	20.03
Fort McKavett	2.67	5.56	1.96	.24	.95	.37	1.77	.35	6.47	3.08	.60	.27	3.15	2.49	10.15	8.50	24.29
Corpus Christi	0	3.15	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Merrill	.....	.....	0	.23	1.83	.50	.05	2.00	9.22	.85	.25	.20	2.09	2.95	10.32	.....	.....
Fort Inge	.....	.....	.....	.....	.....	.....	.85	3.91	6.56	3.15	.58	0	.....	.....	.....	.....	.....
Fort Brown	3.18	1.80	1.50	.80	2.05	3.25	1.90	.58	3.25	5.75	1.45	.55	4.43	5.73	10.45	5.53	25.14
Ringgold Barracks	1.25	1.60	1.79	2.85	1.41	3.07	1.60	1.98	1.48	6.60	1.15	.40	6.05	6.05	9.23	3.25	24.58
Fort McIntosh	1.19	1.09	1.19	.11	1.63	1.36	.29	.11	1.51	7.82	1.13	.38	2.93	1.76	10.56	2.56	18.71
Fort Clark	.70	4.03	2.01	2.15	.84	.78	.14	.04	3.71	1.80	.58	0	5.01	.98	5.51	4.73	10.79
Fort Thorn	1.01	1.08	1.03	0	.08	.74	.17	1.53	6.35	.25	.60	.15	1.11	2.46	7.20	2.74	13.15

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1856.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Fort Duncan	.18	2.75	1.90	1.45	1.85	2.55	1.00	.87	2.76	2.37	.24	0	5.20	4.42	5.37	2.93	17.93
Fort Davis	.72	1.86	2.32	.31	2.58	1.22	3.48	8.19	4.62	.50	.11	0	5.24	12.89	5.23	2.58	25.94
Fort Bliss	.33	5.55	2.02	0	0	.58	2.20	3.38	7.00	0	.75	0	2.02	6.16	7.75	5.88	21.81
Fort Fillmore	0	1.85	.30	0	0	.85	.86	2.48	2.61	0	.27	0	.30	4.19	2.88	1.85	9.22
Fort Craig	0	1.40	.89	.03	.20	1.21	.97	.97	6.32	.06	.51	0	1.12	3.15	6.89	1.40	12.56
Fort Stanton	.50	.58	1.59	.21	.26	.68	1.99	3.62	2.81	.19	2.14	2.21	2.09	6.29	5.14	3.29	16.81
Albuquerque	.20	.20	.19	.10	.23	.25	.17	1.23	1.12	.10	.33	.03	.52	1.65	1.55	.43	4.15
Fort Marcy	1.29	1.36	2.59	.88	.48	2.32	.78	7.08	2.52	.99	2.18	.60	3.95	10.18	3.89	3.25	23.07
Fort Union	.76	1.08	1.11	1.06	.56	.65	3.39	6.74	4.04	0	.70	.12	2.73	10.78	4.74	1.96	20.21
Cantonment Burgwin	.08	.30	.14	.15	.01	.21	.51	.70	.40	.18	.60	.55	.33	1.42	.58	.93	3.86
Fort Massachusetts	.15	2.14	.35	1.30	0	.55	2.19	3.30	1.55	.55	.79	.55	1.70	6.04	3.29	2.84	13.87
Fort Defiance	.82	1.54	.52	.78	.33	.10	2.14	3.07	1.75	0	.18	.40	1.63	5.31	1.93	2.76	11.63
Fort Yuma	0	0	.50	0	0	0	.48	0	.36	0	.19	0	.50	.48	.55	0	1.53
San Diego	.66	2.04	1.97	2.48	.27	0	0	0	.05	0	1.47	1.20	4.72	0	1.52	3.90	10.14
Fort Tejon	4.41	7.88	2.24	4.93	1.62	0	0	.30	.08	.05	3.12	6.54	11.84	.30	3.25	18.83	34.22
Fort Miller	1.66	.83	3.10	1.18	1.10	0	0	0	0	.20	1.49	2.91	5.38	0	1.69	5.60	12.67
San Francisco	5.74	.24	1.17	2.21	.54	0	0	0	0	.33	1.57	2.57	3.95	0	1.90	8.55	14.40
Benecia Barracks	4.81	.27	1.17	1.72	.75	.03	0	0	0	.46	.98	1.91	2.64	.03	1.11	6.99	12.10
Fort Reading	8.25	.80	2.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Humboldt	3.91	1.97	1.21	4.39	1.31	.61	0	0	.20	2.69	3.45	7.50	6.91	.61	6.34	13.38	27.04
Fort Jones	1.59	.42	1.18	1.84	2.77	.60	0	.20	0	.13	1.78	8.93	5.79	.80	1.91	10.94	19.44
Fort Hoskins	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.97	.....	.....	.....	.....	.....
Fort Orford	7.62	4.67	2.21	11.30	3.20	1.85	1.38	.....	.....	.....	.....	.....	16.71	.....	.....	.....	.....
Fort Lane	1.26	.58	.43	2.53	1.91	.41	0	.....	.....	.....	.....	.....	.....	4.58	.....	.....	.....
Fort Yamhill	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.63	14.80	.....	.....	.....	.....	.....
Fort Vancouver	5.00	3.07	1.61	4.01	1.08	3.26	2.89	.03	2.37	4.81	6.62	15.37	9.10	6.23	13.80	23.44	52.57
Fort Umpqua	.....	.....	.....	.....	.....	.....	.....	0	0	0	4.91	11.43	.....	.....	4.91	.....	.....
Fort Dalles	.....	.54	.91	.79	.....	.....	.....	.....	.....	.....	.....	10.79	.....	.....	.....	.....	.....

NOTE.—It appears from an official report, dated October 12, 1856, that the amount of rain falling at Fort Steilacoom has been incorrectly measured this year, and that probably it has also been incorrectly measured since the year 1852. The average annual fall of rain is about forty inches. The summary for Fort Steilacoom is therefore omitted in this table. R. H. C.

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1857.

Stations	Jan.	Feb	Mar.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Kennebec Arsenal	.....	.....	.....	.....	2.54	3.20	1.95	5.59	1.09	3.11	.30	4.30	.....	10.74	4.53	.....	.....
Fort Independence	2.21	1.67	2.60	6.19	1.62	1.77	4.65	5.91	1.76	4.22	1.70	4.48	13.92	12.33	7.68	.45	12.37
Fort Adams	.....	.....	.....	.....	.....	.....	.....	2.60	1.10	4.20	1.45	4.98	.....	.....	7.05	.....	.....
Fort Hamilton	2.99	1.62	1.79	6.68	5.03	1.60	5.48	3.21	3.18	2.87	1.09	3.87	13.29	13.29	7.14	8.48	42.31
Fort Columbus	3.20	.90	1.45	5.70	5.10	4.20	4.80	4.30	3.05	4.10	1.00	2.90	12.25	13.30	8.15	7.00	40.70
West Point	2.25	1.79	1.88	5.32	5.50	6.38	2.04	3.97	4.46	5.10	2.75	5.25	12.90	12.39	12.61	9.59	47.49
Allegheny Arsenal	1.86	1.47	1.05	2.50	6.34	5.14	2.89	4.65	2.20	3.66	3.52	3.61	9.87	12.68	9.38	7.03	38.96
Carlisle Barracks	2.80	1.15	1.45	2.20	8.65	9.35	2.82	2.91	1.50	1.49	2.48	5.35	12.45	15.08	5.47	9.30	42.30
Fort Delaware	1.00	0	0	3.00	2.00	5.36	1.30	3.00	1.00	.30	.60	5.40	5.09	9.66	1.90	9.40	25.96
Fort McHenry	2.20	.66	2.30	1.84	3.23	7.45	2.17	4.43	1.40	2.89	1.87	6.63	7.37	14.35	6.16	10.49	38.37
Fort Monroe	2.31	.90	1.61	3.12	3.60	4.85	4.55	4.20	3.90	2.50	2.30	4.45	10.52	13.60	11.10	7.66	42.88
Fort Moultrie	2.11	1.73	2.60	3.20	.61	3.97	8.25	6.18	1.00	2.21	2.52	5.81	6.50	18.40	5.73	9.65	40.28
Fort Capron	.65	.59	3.21	3.36	1.93	7.65	4.82	3.69	6.47	3.29	6.25	7.42	8.40	16.46	16.01	13.56	54.43
Key West Barracks	.81	.99	3.09	1.94	.89	1.25	12.39	4.25	.....	.....	1.13	.90	5.92	17.89	.....	2.70	.....
Fort Myers	.07	.01	.81	2.13	.23	8.03	8.67	9.27	6.10	2.05	0	2.80	3.20	25.97	8.15	2.88	40.20
Fort Dallas	.20	1.50	5.50	3.90	3.20	6.20	12.00	6.56	6.23	5.78	3.79	4.61	12.60	24.66	15.80	6.31	59.47
Fort Dewart	1.01	1.17	3.37	.73	.04	10.46	4.31	1.57	.....	.....	.....	.....	4.14	25.50	.....	.....	.....
Fort Brooke	1.80	.10	3.68	.91	.36	5.56	7.41	6.39	1.97	.....	2.71	2.83	4.95	19.36	.....	4.73	.....
Barancas Barracks	3.69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mount Vernon Arsenal	2.65	2.00	1.50	4.78	.17	2.60	3.85	9.33	.17	3.33	10.05	6.39	9.45	15.78	13.55	11.04	49.82
New Orleans	2.68	1.97	2.86	1.73	7.33	2.90	5.86	4.64	2.55	5.01	3.05	5.10	11.92	13.40	10.61	9.75	45.68
Baton Rouge	2.85	1.40	6.05	2.18	9.01	2.53	5.19	6.48	.90	2.40	2.45	8.55	17.21	14.20	5.75	12.80	49.99
Fort Washita	1.20	4.19	.38	.41	4.41	2.71	2.95	4.61	1.64	2.37	4.58	3.69	5.23	10.28	8.59	9.08	33.18
Fort Smith	0	6.83	1	3.49	3.63	1.75	4.20	3.14	2.43	5.05	4.35	1.65	7.12	11.40	11.83	8.48	38.33
Fort Gibson	2.20	.....	1.48	.....	.....	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jefferson Barracks	.29	2.23	1.51	2.12	1.22	7.11	5.95	2.77	5.85	5.18	5.00	2.18	4.54	15.83	16.03	4.61	41.01
Newport Barracks	.75	1.85	.70	5.33	9.25	4.53	4.10	4.25	1.19	4.06	6.01	4.10	15.28	12.88	11.26	6.91	46.33
Fort Snelling	1.15	.94	.79	1.25	2.05	6.74	.65	2.03	2.46	0	5.75	2.95	7.09	9.42	8.21	7.37	32.09
Fort Ripley	1.67	1.68	.74	1.16	2.68	5.66	.....	.....	.....	.....	0	.46	4.58	.....	.....	3.81	14.05
Fort Ridgely	5.85	5.51	3.60	2.90	4.95	2.85	1.45	3.25	3.95	.39	2.84	.81	11.45	7.55	7.18	12.20	38.38
Fort Leavenworth	.27	5.56	1.94	.58	2.31	5.95	1.87	3.81	1.46	2.01	5.35	.60	4.83	11.59	8.82	6.43	31.67
Fort Riley	.63	3.57	.35	.81	.91	1.20	.20	4.37	3.09	1.26	1.39	.20	2.07	5.77	5.74	4.39	17.97
Fort Kearny	1.06	0	.12	1.21	1.56	.49	8.50	4.39	2.65	5.88	2.56	.20	2.89	13.38	11.09	1.26	28.62
Fort Laramie	.33	.53	0	.07	1.45	.12	.04	1.87	.10	1.53	.05	.06	1.52	2.03	1.68	.92	6.15
Fort Randall	.91	.72	.11	1.21	1.96	1.98	1.94	1.14	3.10	2.01	.85	.20	3.28	5.06	5.99	1.83	16.16
Fort Pierre*	.97	2.17	.29	.58	2.88	.....	.....	.....	.....	.....	.....	.....	3.75	.....	.....	.....	.....
Fort Arbuckle	1.10	5.07	.63	1.69	5.83	3.24	8.64	6.18	1.04	3.66	5.22	5.19	8.15	18.06	9.92	11.36	47.49
Fort Belknap	0	4.31	1.54	.14	2.91	4.29	6.42	6.42	2.17	1.55	7.30	4.56	4.59	17.13	11.02	8.87	41.61
Camp Cooper	.....	3.01	.06	.12	2.50	3.10	9.30	9.35	2.50	6.75	.....	3.85	2.98	21.75	.....	.....	.....
Fort Gardenmore	.69	1.32	1.13	1.14	.74	1.49	.90	2.62	3.75	2.87	1.12	2.99	3.01	4.41	7.74	4.91	20.07
Fort McKavett	.26	1.64	.70	.64	.43	.20	.98	3.58	3.77	3.55	1.42	4.25	1.77	5.46	8.74	6.15	22.12
San Antonio	.....	.....	.....	.....	.....	.....	.....	2.60	3.48	2.15	8.88	11.09	.....	.....	14.51	.....	.....
Fort Mason	.67	1.95	.81	.80	.80	.45	2.41	3.34	8.66	1.35	3.86	6.70	2.40	6.20	17.01	9.32	34.93
Fort Lancaster	.15	.25	.65	1.02	3.20	5.35	1.81	4.23	5.85	7.16	2.71	7.20	4.87	11.39	15.72	7.60	39.58
Fort Brown	.10	.35	2.30	1.15	0	.50	3.25	.65	4.65	4.65	.55	2.55	3.45	4.10	9.85	3.00	20.70
Camp Verde	0	0	0	0	0	.40	1.03	2.77	11.85	3.96	3.16	7.11	0	4.20	18.97	7.11	30.28
Camp Colorado	0	0	0	0	0	0	.41	2.89	4.25	2.56	2.34	4.19	0	3.30	9.15	4.19	16.64
Ringgold Barracks	0	0	0	1.52	0	.16	1.67	1.13	3.45	1.76	.88	.85	2.40	2.96	6.09	1.15	12.60
Fort McIntosh	.0	.15	.20	.71	1.0	.54	1.29	.82	2.32	1.63	1.38	4.52	2.46	2.15	6.33	5.17	16.11

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1857.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Fort Clark	.55	4.00	.31	.25	.61	1.20	.....	.71	7.91	1.62	.52	23.03	1.17	.....	10.05	27.58	40.71
Fort Duncan	0	1.85	.18	.21	.67	1.91	.36	3.70	9.46	2.52	1.86	5.57	1.06	5.97	13.84	7.42	28.29
Camp Moore	0	.75	0	.02	0	.....	.....	.....	.....	.....	.....	.....	.02	.....	.....	.....	.....
Fort Davis	0	.23	.04	.....	.46	1.68	6.41	2.58	4.28	2.34	0	.80	.....	10.67	6.62	1.03	18.82
Fort Bliss	0	.50	0	.....	0	.63	1.52	3.73	4.15	2.87	.07	.....	.....	5.88	7.09	.50	13.47
Fort Buchanan	.....	.....	.....	.....	.....	.....	.....	10.60	4.76	1.07	0	.69	.....	.....	5.83	.....	.....
Fort Thorn	0	2.51	.....	.01	0	0	4.70	5.10	6.13	1.00	0	1.10	.....	9.80	7.13	.....	.....
Fort Fillmore	.30	.95	0	.26	0	0	.43	3.68	2.24	2.41	0	.13	.26	4.11	4.65	1.38	10.40
Fort Craig	.70	.52	0	.07	.16	.50	2.38	3.59	3.79	.92	0	.89	.23	6.47	4.71	2.02	13.43
Fort Stanton	.67	.97	.17	.62	.69	1.27	4.88	9.24	6.14	2.59	.87	.59	1.48	15.39	9.60	2.23	28.70
Albuquerque	1.75	.25	0	.15	0	.10	.35	.77	.78	1.25	.10	0	.15	1.22	2.13	1.70	5.20
Fort Marcy	1.03	.87	.11	.73	.18	.22	.44	1.75	1.28	1.40	.27	.21	1.02	2.41	2.95	2.14	8.52
Fort Union	.70	.11	.12	.98	.25	2.49	4.03	2.96	4.33	3.32	1.10	.75	1.35	9.48	8.75	7.36	27.94
Cantonment Burgwin	1.50	.25	.12	.32	.13	.02	.13	.21	1.20	1.25	1.97	.86	.55	.36	1.42	2.63	7.96
Fort Massachusetts	.80	.52	.20	1.51	.75	.95	.72	3.98	1.34	1.19	2.03	.67	2.46	5.65	4.56	1.99	14.66
Fort Defiance	.20	.67	0	.51	.04	.45	1.30	1.78	1.01	1.73	4.30	1.07	.55	3.53	7.04	1.94	13.06
Fort Yuma	0	.30	0	0	0	0	.....	0	0	0	0	0	0	0	0	.30	.30
San Diego	.21	2.12	0	0	12	0	.....	0	0	.64	2.25	1.38	.12	.....	2.87	3.71	6.72
Fort Tejon	.37	.95	0	.04	.63	0	.07	.12	0	2.11	1.04	4.50	.67	.19	3.15	5.82	9.83
Fort Miller	1.95	4.53	.29	0	0	0	0	0	0	1.03	3.90	.57	.29	0	4.93	7.05	12.27
San Francisco	2.12	6.09	1.39	0	.14	.11	0	0	0	.45	2.84	2.90	1.53	.11	3.29	11.11	16.04
Benicia Barracks	1.69	4.78	1.17	0	.01	.12	0	0	0	.32	1.72	2.34	1.18	.12	2.04	8.81	12.15
Fort Humboldt	7.67	5.90	4.60	.06	1.43	.50	.....	0	.55	.57	3.13	7.80	6.09	.....	4.25	21.37	32.21
Fort Jones	3.62	7.59	2.35	0	.69	1.86	.....	0	.60	.80	4.47	4.24	3.04	.....	5.87	15.45	24.22
Fort Umpqua	13.53	11.44	8.41	.67	3.07	2.98	0	.10	1.59	2.10	6.46	12.60	12.15	3.08	10.15	37.57	52.95
Fort Yamhill	11.86	9.03	8.52	.10	1.76	1.28	.05	.10	1.68	1.56	7.58	14.26	10.38	1.43	10.82	35.15	57.78
Fort Vancouver	6.74	4.39	7.30	.37	3.04	2.09	.....	.14	1.87	.96	7.01	12.28	10.71	.....	9.84	23.41	46.19
Fort Dalles	7.08	1.85	2.83	0	.23	1.02	.58	.....	2.70	.25	5.38	7.42	3.06	1.60	8.33	16.35	29.34
Fort Hoskins	16.16	10.90	8.63	.09	1.33	1.80	.13	.10	1.95	1.20	7.05	15.72	10.05	2.03	10.20	42.78	65.06
Fort Steilacoom	5.51	4.18	4.45	.26	.83	1.73	.10	.30	2.73	2.07	4.36	13.01	5.54	2.13	9.16	22.70	39.53
Fort Walla Walla	.91	1.44	1.47	.28	3.42	1.40	1.28	0	1.22	.64	2.68	3.15	5.17	2.68	4.54	5.50	17.89
Fort Bellingham	.....	.....	.....	.....	.....	.75	.33	.24	2.81	2.02	2.70	6.92	.....	1.32	7.53	.....	.....
Fort Simcoe	.....	.....	.....	0	.04	.04	.11	0	.03	.32	.73	.....	.....	.15	1.08	.....	.....

* First fourteen days of May.

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1858.

Stations.	Jan.	Feb	Mar.	April	May.	June.	July	Aug.	Sept.	Oct	Nov	Dec	Spring.	Summer	Autumn	Winter	Year
Kennebec Arsenal	3.00	2.25	1.23	5.33	3.10	2.38	3.87	1.60					9.66	10.85			
Fort Independence	.68	1.42	1.43	4.43	2.95	5.60	2.80	5.16	3.44	1.75	3.37	4.04	8.81	13.56		6.74	37.65
Fort Adams	2.05	1.41	1.63	4.21	3.46	6.86	3.98	4.78	3.47	3.45	2.87		9.30	15.62	9.79		
Fort Hamilton	2.61	3.51	.68	4.50	4.58	3.30	3.87	2.40	2.80	1.23	3.58	2.96	9.76	9.57	7.61	9.11	36.05
Fort Columbus	1.70	1.29	.65	0	.54	3.90	4.40	3.91	3.30	2.00	4.00	4.80	6.19	14.26	9.30	7.70	37.45
West Point	3.85	1.65	.92	4.48	6.17	4.30	3.17	3.52	2.05	3.65	6.30	3.90	11.57	10.99	11.90	9.38	43.94
Allegheny Arsenal	1.1.	2.78	.79	4.29	6.63	4.30	3.60	1.90	1.03	2.40	2.37	4.77	11.91	9.80	5.80	8.70	36.21
Carlisle Barracks	1.54	.95	1.07	3.70	8.55	2.80	1.05	4.05	3.10	1.80	1.65	3.30	12.32	7.90	6.55	6.79	33.56
Fort Delaware	1.50	.30	.10	3.00	4.20	2.05	.60	1.90	0	1.36	1.01	1.12	7.30	4.55	2.37	2.92	17.14
Fort McHenry	1.83	1.61	1.31	4.53	9.08	4.90	3.23	3.37	4.44	2.34	3.97	5.65	14.72	11.50	10.75	9.09	46.06
Fort Monroe	2.40	3.10	1.00	2.99	3.30	3.45	2.60	2.45	2.95	.65	4.45	5.50	7.89	8.50	8.05	13.40	37.21
Fort Moultrie	2.03	6.70	1.03	2.67	4.11	1.09	8.08	8.04	3.06	1.18	3.84	2.85	7.81	17.21	10.88	11.58	47.48
Fort Capron	5.56	2.71	3.97	.40	2.51								6.88				
Key West Barracks	2.64	2.51	1.75	.28	3.47	1.87	2.94	4.31	10.42	1.96	3.72	1.03	.39	11.67	15.76	5.58	38.40
Fort Myers	1.90	5.16	1.80	0	4.51	1.10							6.31				
Fort Dade	3.71	3.30	5.18	.85	1.31								7.04				
Fort Barrancas		1.93	5.04	.58													
Fort Brooke	1.12	3.44	4.20	.48	2.54	6.03	13.29						7.22				
Barrancas Batteries						.75	7.14	2.44	4.36	1.84	3.23	6.38		11.33	15.59		
Mount Vernon Arsenal	10.62	3.12	5.21	5.02	1.42	4.80	7.31	5.89	4.38	7.73	3.98	7.87	8.65	18.00	16.09	21.61	64.35
New Orleans	3.71	1.39	4.31	2.26	3.45	4.89	7.72	7.35	3.67	4.13	3.20	3.42	11.42	19.96	10.90	11.43	52.81
Baton Rouge	3.97	2.06	3.15	1.67	6.60	6.57	5.66				4.30	3.85	11.73	11.42		21.76	
Fort Wachita	3.20												1.20				
Fort Stanly	0.72												4.24				
Fort Mackenzie							4.48	.95	2.27	2.81	.78	1.05			5.76		
Jefferson Barracks	3.46	1.51	1.32	2.65	1.62	6.39	7.67	1.87	4.27	6.57	3.94	3.89	10.59	15.93	14.78	8.66	49.96
Newport Barracks	2.25	1.70	.90	5.65	3.84	6.95	3.98	6.20	.75	3.11	2.92	7.42	13.20	17.13	5.88	11.87	58.08
Fort Snelling		.73	1.22	3.79													
Fort Ripley	1.51	.55	.61	2.13	1.90	1.80	3.95	1.77	4.14	.41	.67	.62	4.66	7.52	5.25	2.38	19.81
Fort Ridgely	.85	.53	.60	3.66	2.93	1.16	4.75	3.26	2.58	.99	.96	.98	7.19	9.17	4.79	1.66	22.52
Fort Randall	1.70	.45	.38	2.17	3.22	1.36	3.85	3.96	.92	2.76	.26	.27	5.77	9.17	3.94	2.42	21.30
Fort Leavenworth	2.38	2.10	1.00	2.62	5.00	8.77	10.57	7.26	8.28	5.66	3.90	2.11	8.62	26.60	17.84	6.59	59.65
Fort Riley	1.21	.65	1.92	3.75	3.29	5.30	4.02	4.10	1.66	4.51	.74	.75	8.96	11.39	6.91	4.04	31.97
Fort Kearny	1.14	.24	1.91	1.14	3.55	3.02	4.41	1.76	2.10	3.35	.21	.07	9.53	9.19	5.66	1.76	26.14
Fort Larned	0	.02	.02	.09	1.12	.85	1.14	1.81	.70	1.43	.32	.45	1.23	3.75	2.45	.47	7.90
Fort Arbuckle	1.02											.62					
Fort Belknap	2.38						2.50	1.56	.86	2.36	.35	.55			3.67		
Fort Cadhouse	1.55	.51	.80	.35	1.69	.50	.90	.43	1.68	.73	.78	.33	2.80	1.82	3.19	2.41	10.34
Fort McKavett	1.30	1.05	3.60	1.78	.85	1.26	2.73	1.68	4.35	.74	.49	1.63	6.23	5.07	5.28	4.14	21.62
San Antonio	.73	10.60	1.20	.50	3.12	0	1.40	.51	.70	2.00	.87	1.30	.43	.65	2.55	16.22	21.53
Fort Mason	1.5.	4.70	1.05	1.16	4.30	.87	1.37	2.09	1.51	1.05	.05	.41	7.17	7.04	3.81	2.57	19.73
Camp Hudson						1.80	2.40	0	1.00	1.11	.03	.07	.05		5.13	1.24	
Fort Inge	1.95	1.15	.72	1.80	4.25	5.97	5.00	2.76	.70	.98	.35	1.58	6.11	13.73	2.03	5.68	28.21
Camp Verde		1.07	3.56	2.90	2.51	1.50	.55	.05	.50	3.60	.61	1.38	8.87	2.15	4.11		
Camp Colorado		.86	1.83	2.05	2.54	1.30	2.33	1.77	1.40	2.65	.60	.50	6.12	5.19	4.65		
Fort Bascom	1.10	.7	.6	0	1.00	5.15	.70	2.45	3.77	2.75	.45	3.67	1.07	8.30	.96	6.02	24.36
Ringgold Barracks	1.43	.69	0	0	.69	7.27	2.30	2.99	2.00	.80	.49	1.01	.69	12.47	3.29	3.43	19.88
Fort McIntosh	1.37	.63	.34	0	2.10	1.54	.50	1.32	.90	.30	.55	.35	2.23	3.36	1.75	2.95	10.25
Fort Croghan		.8	.7	.6	1.47	4.99	.10	2.99	2.67	.28	.90	1.00	5.46	5.20	3.67	2.56	14.90

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1858.

Stations	Jan.	Feb.	Mar	April	May	June	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Fort Duncan	.45	.28	1.79	0	2.68	1.11	.24	1.87	2.90	.35	.77	.54	4.47	6.25	4.02	1.27	16.01
Fort Davis	3.00	1.45	.02	0	.50	[illegible]	2.07	2.42	2.05	0	.1[illegible]	.[illegible]	[illegible]	6.70	[illegible]	4.68	14.12
Fort Bliss	.25	.15	.06	0	0	.09	1.52	2.42	.40	0	.01	0	.06	4.13	.41	.40	5.00
Fort Buchanan	1.97	.51	.29	1.46	0	.48	3.21	3.50	1.32	.60	.46	2.58	1.75	7.19	2.08	5.06	16.08
Fort Thorn	1.30	0	.01	10	0	.22	2.52	5.09	.20	0	.01	1.07	.14	7.83	.24	2.37	10.58
Fort Fillmore	0	0	.22	0	0	.78	2.50	1.61	0	0	0	0	.22	4.69	.....	.....	.....
Fort Craig	0	0	1.50	.11	0	.21	1.13	1.42	.04	0	0	.10	1.61	2.79	.04	.19	4.63
Fort Stanton	.65	.12	1.17	.31	.70	2.00	3.49	8.09	.74	.47	.11	.48	2.48	13.58	1.45	1.25	18.76
Albuquerque	0	.50	.80	1.60	0	3.50	3.60	4.90	0	0	0	1.40	2.40	12.00	0	1.90	16.30
Fort Marcy	0	.48	.69	1.05	.58	.73	4.01	2.40	.43	.03	.30	.02	2.32	7.17	.76	1.10	11.35
Fort Union	1.13	1.36	1.15	.40	1.20	3.20	5.80	5.71	.40	.30	.52	1.42	2.75	14.71	1.42	3.91	22.79
Cantonment Burgwin	.72	.18	.53	2.24	.74	.89	1.38	2.39	.87	.56	.[illegible]	.[illegible]	3.51	4.66	2.01	1.73	11.91
Fort Massachusetts	.54	.20	.[illegible]	2.11	1.00	.58	1.36	.....	.....	.....	.....	.....	3.19	.....	.....	.....	.....
Fort Garland	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.22	.68	.15	.....	.....	.....	.....	.....
Fort Defiance	.54	.54	.59	1.64	0	.27	2.22	3.32	.95	.28	.28	1.31	2.23	[illegible]	1.51	2.42	11.97
Fort Yuma	0	1.06	0	0	0	0	0	0	0	0	0	1.03	0	[illegible]	0	2.09	2.09
San Diego	1.87	.45	1.60	.27	0	.15	0	.03	.11	.19	.32	3.65	1.87	.18	.92	5.97	8.94
Fort Tejon	2.60	.75	7.39	5.37	.09	1.20	0	.35	.44	2.62	.25	3.07	12.85	1.55	3.31	6.42	24.13
Fort Crook	2.23	4.38	2.57	1.28	.13	.34	0	.03	.04	3.67	1.32	6.39	3.98	.37	5.03	13.00	22.38
Fort Miller	2.36	.17	1.00	.81	0	0	.....	.....	.....	.....	.....	.....	1.81	.....	.....	.....	.....
San Francisco	3.07	1.02	3.46	1.12	.16	0	.03	.01	0	1.95	.53	4.60	4.74	.01	2.48	8.69	15.95
Benicia Barracks	2.05	1.01	2.49	.81	.12	.01	0	.10	0	1.89	0	3.91	3.42	.11	1.89	6.97	12.39
Fort Humboldt	6.25	8.45	5.21	2.67	1.30	.47	0	.45	.40	3.77	3.38	9.33	9.18	.92	7.55	21.03	41.68
Fort Bridger	.....	.....	.....	.....	.....	.....	.14	.39	.[illegible]	.57	.48	1.36	.....	.....	1.31	.....	.....
Fort Yamhill	9.18	9.37	7.51	2.66	[illegible]	2.51	0	.16	4.92	4.47	6.85	11.37	14.04	2.70	15.34	29.92	62.[illegible]
Block House	.....	.....	9.55	7.23	5.46	2.57	.70	0	6.44	7.71	11.85	2.59	22.34	2.87	26.10	.....	.....
Fort Jones	6.15	[illegible]	3.69	1.15	1.55	.[illegible]	.....	.....	.....	.....	.....	.....	6.39	.....	.....	.....	.....
Fort Umpqua	11.70	10.40	7.80	4.62	3.75	.85	.30	.60	2.24	7.05	9.17	14.69	16.17	1.75	18.46	36.79	73.17
Fort Vancouver	5.62	6.90	4.20	1.98	2.30	1.82	0	.71	4.37	3.55	4.25	4.76	8.48	2.53	12.17	17.98	40.46
Fort Dalles	5.60	9.41	2.91	1.36	1.70	1.03	0	.75	5.16	3.32	6.48	5.93	5.97	1.78	14.96	20.91	43.63
Fort Hoskins	7.82	12.29	1.89	2.81	6.92	2.19	.30	.21	5.66	6.67	7.50	13.71	11.62	2.70	19.83	33.82	67 97
Fort Steilacoom	8.36	3.17	6.70	3.21	3.85	2.65	.55	4.47	3.80	3.39	4.65	5.34	13.76	7.67	11.84	16.87	50.14
Fort Walla-Walla	1.96	2.62	2.76	2.02	1.52	1.72	.26	.90	1.30	1.64	1.06	1.36	6.30	2.88	4.00	5.91	19.12
Fort Bellingham	3.72	3.43	2.74	2.69	1.21	1.35	.42	2.16	1.66	2.39	4.03	5.49	6.64	3.93	8.01	12.64	31.29
Fort Simcoe	2.11	4.54	1.06	.49	.54	.48	.63	1.04	.85	.83	.84	.95	2.09	1.55	2.52	7.60	13.76
Fort Cascades	.....	.....	.....	.....	.....	4.65	3.40	0	1.00	7.33	5.78	8.30	8.18	.....	4.40	21.41	.....
Camp Floyd	.....	.....	.....	.....	.....	.....	.....	0	.43	.18	1.78	.50	.15	.....	.....	2.36	.....
Camp Scott	.....	.32	.26	.25	.52	1.31	1.30	.....	.....	.....	.....	.....	.....	2.08	.....	.....	.....

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1859.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer.	Autumn.	Winter.	Year.
Fort Independence	1.99	3.18	5.39	2.51	3.41	7.79	1.02	3.76	3.73	2.45	2.45	5.20	11.38	12.57	8.63	11.11	46.72
Fort Adams	5.71	3.10	6.82	3.86	4.27	6.68	1.06	4.06	4.05	2.74	.....	.....	14.95	11.80	.....	.....	.....
Fort Hamilton	5.17	3.60	5.18	4.21	1.70	5.15	3.96	5.70	1.91	.87	2.3	2.34	11.09	14.83	5.76	11.41	43.09
Fort Columbus	6.20	4.35	7.50	6.05	3.90	6.70	3.80	7.10	7.10	1.30	3.65	4.76	17.45	17.60	12.05	15.31	62.41
West Point	4.00	2.30	5.85	4.00	2.89	5.45	1.65	6.70	5.20	1.55	2.70	1.40	12.74	13.80	9.45	7.70	43.69
Allegany Arsenal	.43	2.07	3.83	4.79	2.00	3.02	1.87	5.00	2.54	.....	1.69	4.77	10.62	9.89	.....	7.87	.....
Carlisle Barracks	4.45	5.15	6.40	2.20	1.67	2.45	3.25	2.50	.90	1.15	.75	.....	13.75	7.37	11.90	.....	.....
Fort Delaware	2.81	.22	4.38	3.90	1.90	.....	.....	.....	.....	.....	.....	.....	10.18	.....	.....	.....	.....
Fort McHenry	7.06	5.71	6.26	6.96	2.74	1.16	.....	.....	.....	.....	.....	.....	15.96	.....	.....	.....	.....
Fort Monroe	3.61	.....	3.80	4.30	3.80	3.60	4.36	4.25	3.00	3.00	2.60	2.50	11.90	12.21	7.65	.....	.....
Fort Moultrie	3.65	3.03	7.92	1.70	.73	9.06	1.25	24.42	1.36	.28	4.58	2.74	10.35	37.73	6.22	9.42	63.72
Key West Barracks	2.43	.79	0	.21	2.97	5.20	3.90	4.42	1.66	6.54	5.25	.86	3.18	13.52	13.15	4.08	34.23
Mount Vernon Arsenal	6.07	5.20	10.82	6.42	2.97	6.47	5.57	4.53	6.48	2.41	1.80	2.91	20.21	16.57	10.69	17.47	64.94
Barrancas Barrack	6.43	3.07	13.58	11.61	2.30	2.93	3.72	8.11	5.36	7.12	.92	5.24	26.89	14.76	13.70	14.74	70.09
New Orleans	6.40	3.77	7.84	3.99	1.94	7.12	.93	6.17	1.19	2.17	2.79	5.09	13.77	14.92	6.15	15.26	49.40
Baton Rouge	5.18	4.35	5.10	4.40	1.94	4.11	3.95	6.03	2.35	.95	.....	.....	11.44	14.39	.....	.....	.....
Fort Wachita	.....	1.89	.55	1.46	4.82	.....	.....	.....	.....	.....	1.38	.55	6.83	.....	.....	.....	.....
Fort Smith	.....	.....	2.81	5.44	.....	.....	.....	1.15	5.70	1.35	4.40	2.25	.....	.....	11.45	.....	.....
Jefferson Barracks	2.41	6.10	2.90	3.20	12.28	7.83	3.80	3.40	3.26	1.01	4.04	2.35	17.18	15.03	8.31	11.06	51.58
Newport Barracks	2.50	6.20	4.30	7.28	1.70	3.26	1.30	3.27	1.95	2.00	5.87	6.95	13.28	7.83	9.82	15.65	46.58
Fort Mackinac	.32	.54	2.11	.40	2.23	2.62	3.40	2.62	3.43	1.97	2.42	.49	4.74	8.64	7.82	1.35	22.55
Fort Ripley	.57	.50	4.49	1.44	5.85	4.00	.66	1.65	3.87	.35	2.10	.52	11.78	6.31	6.32	1.59	26.00
Fort Ridgely	.61	.49	4.22	1.62	6.47	7.04	5.90	1.30	2.54	.46	1.37	.83	12.31	14.24	4.37	1.93	32.85
Fort Randall	.04	.70	1.76	.22	3.75	3.15	.26	3.84	1.38	.18	.28	.14	5.73	7.25	1.84	.88	15.70
Fort Leavenworth	2.25	.59	1.85	1.88	5.71	6.96	6.32	6.47	5.47	.52	.79	.03	9.44	19.75	6.78	2.87	38.34
Fort Riley	2.79	.16	1.27	.97	5.70	1.96	1.45	5.84	1.17	1.39	.77	0	7.94	9.25	3.33	2.95	23.47
Fort Kearny	.29	.37	2.99	.65	3.95	.66	1.80	2.76	2.03	.38	.21	.10	7.59	5.42	2.62	.67	16.10
Fort Laramie	.01	0	0	.18	2.11	.03	1.33	.57	.49	.22	1.12	.20	2.29	1.93	1.83	.21	6.26
Fort Arbuckle	.70	.50	.92	1.61	4.54	4.47	1.06	2.15	8.92	.75	1.06	1.28	7.07	7.68	10.73	2.48	27.96
Fort Chadbourne	1.05	.23	.25	3.89	2.21	1.16	1.51	1.36	7.24	1.15	.16	1.18	6.35	4.03	8.55	2.46	21.39
Fort McKavett	.60	.06	.22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Quitman	.13	1.20	.01	.35	0	.08	1.99	2.11	1.75	.32	.24	.13	.36	4.18	2.31	1.46	8.31
San Antonio	1.30	.30	.10	1.35	2.45	.10	.45	5.00	17.60	2.80	0	.23	3.90	5.85	20.40	1.83	31.98
Camp Stockton	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.88	0	0	.....	.....	.....	.....	.....
Camp Hudson	.60	.63	.02	1.03	3.00	.72	.....	1.32	1.73	2.87	.16	.32	4.05	.....	4.76	.95	.....
Fort Lancaster	1.20	0	0	3.45	.40	2.99	2.10	0	10.85	3.28	0	.71	3.85	5.00	4.13	1.91	24.89
Camp Verde	1.05	.46	.59	.02	1.06	5.90	1.28	1.01	6.01	1.88	0	.59	1.67	8.19	7.89	2.01	19.76
Camp Colorado	1.00	0	.61	1.64	1.61	1.27	.92	2.69	8.65	1.13	0	1.33	3.86	4.88	9.73	2.33	20.80
Camp Cooper	.....	.....	.....	.....	2.42	2.40	3.20	.....	.79	.01	.....	.....	.....	.....	.....	.....	.....
Fort Inge	.70	.67	.08	.91	1.42	2.80	.26	2.35	5.11	3.15	.06	.75	2.41	5.41	8.32	1.92	18.06
Fort Clark	.75	.10	.30	.35	.65	.21	1.46	1.39	9.20	2.75	0	.59	1.30	3.06	11.95	1.44	17.75
Fort Duncan	.74	.50	0	.07	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Davis	.29	1.08	0	1.68	.31	1.89	2.91	3.83	8.49	1.94	0	.10	1.97	8.66	10.43	1.47	22.53
Fort Bliss	.10	.10	0	.01	.01	.03	1.60	.22	1.11	.70	.95	0	.02	1.85	2.76	.20	4.83
Fort Buchanan	.54	2.36	0	.50	.20	.20	9.21	6.67	.74	2.33	2.81	.40	.59	16.11	5.91	3.30	25.82
Fort Fillmore	0	.14	0	0	0	0	1.18	1.15	1.59	.30	1.16	0	0	2.33	3.05	.14	5.52
Fort Craig	0	0	.35	0	0	1.17	7.43	11.87	2.39	.50	.20	.97	.05	20.47	3.09	.97	24.58
Fort Mojave	.....	.....	.....	.....	.....	.....	.....	0	0	0	1.50	.29	.....	.....	.....	.....	.....
Fort Stanton	.09	.2	1.00	.30	.30	3.19	3.30	6.93	3.77	2.60	.25	1.65	1.30	13.42	6.62	2.25	23.81

MONTHLY SUMMARIES OF AMOUNT OF RAIN FOR 1859.

Stations.	Jan.	Feb.	Mar.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring	Summer	Autumn	Winter.	Year.
Albuquerque	0	0	.15	.15	0	0	.25	2.30	3.10	0	0	0	.30	2.55	3.10	0	5.95
Fort Marcy	.01	.64	.50	.08	0	.97	2.02	2.44	1.98	.55	.23	.07	.58	5.43	2.76	.72	9.49
Fort Union	.25	0	1.00	.65	0	4.80	5.76	7.18	3.55	1.10	0	.25	1.65	17.74	4.65	.50	24.54
Cantonment Burgwin	.33	1.35	.66	.89	.48	.48	1.85	2.87	1.93	.55	.83	.48	2.63	5.20	3 31	2.16	12.70
Fort Garland	0	.15	.27	.19	.32	1.32	2.72	4.75	.68	.55	20	.20	.78	8.79	1.43	.35	11.5
Fort Defiance	.02	.77	.41	.85	.39	.63	2.72	2.17	1.79	.30	.....	.23	1.65	5.52	0	1.02	.....
Fort Yuma	0	2.09	0	0	0	0	0	.50	0	.42	1.83	0	0	.50	2.25	2.09	4.8
San Diego	.....	.....	.....	.....	.....	0	0	0	0	.18	1.71	2.20	0	0	1.89	.....	.....
Fort Tejon	.29	.....	1.22	.....	0	0	0	.07	8.58	.16	.....	0	.....	.....	8.65	.....	.....
Fort Crook	1.81	5.96	4.06	1.26	.60	0	0	.05	1.80	0	3.85	1.00	5.92	.05	5.65	8.77	20.39
San Francisco	1.63	4.82	1.99	.14	1.17	0	0	0	.02	.02	5.45	1.10	3.30	0	5.49	7.55	16.34
Fort Ter-Waw	.....	.....	.....	.....	3.47	2.00	.30	.08	1.42	6.61	1.03	15.35	7.44	.....	1.80	25.99	.....
Benicia Barracks	1.35	4.26	1.16	.29	1.43	0	0	0	0	0	4.10	1.08	2.88	.....	4.10	6.69	.....
Fort Humboldt	10.32	10.10	6.90	1.54	1.10	.08	.15	0	1.94	1.17	6.57	2.88	9.54	.23	9.68	23.30	42.75
Fort Yamhill	9.35	10.57	11.67	1.50	2.60	.09	.04	1.08	5.75	3.10	8.02	1.86	15.77	1.21	16.87	21.78	55.63
Fort Umpqua	9.08	15.35	14.45	2.22	3.19	.85	.40	1.13	6.30	2.90	8.55	4.73	19.86	2.38	17.75	29.16	69.15
Block House	12.70	12.30	22.57	2.41	5.33	1.90	.....	.....	13.80	6.20	16.20	.07	30.31	.....	36.20	25.07	.....
Fort Dalles	5.33	6.00	6.07	.....	1.27	.20	.06	.47	5.77	2.14	4.25	3.66	.....	.73	12.16	14.99	.....
Fort Steilacoom	8.35	3.42	7.75	.80	1.40	.35	.70	.44	4.09	4.63	3.37	3.42	9.95	1.49	12.09	15.19	38.72
Fort Walla-Walla	.50	1.62	3.90	2.38	2.22	.04	.14	.28	3.33	.60	2.40	.72	8.50	.46	6.33	2.84	18.13
Fort Bellingham	2.36	1.76	4.29	1.52	1.94	1.46	.54	.....	.....	.....	.....	.....	7.75	.....	.....	.....	.....
Fort Vancouver	5.77	5.10	9.60	1.90	2.00	.16	.25	1.02	4.29	2.22	4.15	2.40	13.50	1.43	10.66	13.27	38.86
Fort Hoskins	10.70	12.12	15.56	2.41	4.52	11.11	.06	1.18	7.08	3.49	9.70	4.11	22.49	1.35	20.27	26.93	71.04
Fort Simcoe	2.50	1.19	1.38	.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Cascades	7.72	8.51	13.83	3 14	2.43	.63	.16	1.06	7.75	4.38	7.20	4.13	19.40	1.85	19.33	20.39	60.97
Fort Townsend	.66	.59	.52	.46	1.09	.15	.....	.....	.....	.....	.....	.....	2.07	.....	.....	.....	.....
Camp Semialmoo	.....	.....	6.22	2.12	1.69	2.08	.68	.80	3.91	7.88	2.57	0	10.03	3.56	14 36	.....	.....
Camp Floyd	.35	1.14	.28	.40	1.24	0	2.67	.18	1.72	0	3.11	.19	1.92	2.85	4.83	1.68	11.28
Fort Bridger	.....	.13	.24	.29	1.09	.....	.....	.38	1.39	.15	1.63	.27	1.62	.....	3.17	.....	.....

* The amounts of rain reported this year at Forts Columbus and Moultrie are unusually great, but the measurements appear to have been correctly made. R. H. C.

SUMMARY OF WEATHER OBSERVATIONS FOR 1856.

STATIONS	WINDS. DAYS.								WEATHER. DAYS		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.
[1] Fort Independence	20	27	7	18	14	45	16	69	165	109	73	24
Fort Hamilton									164	202	66	17
Fort Columbus	15	48	4	44	17	92	24	122	177	189	78	17
West Point	140	6	4	13	102	18	28	55	209	157	83	27
[1] Fort Ontario (*a*)	18	13	27	24	49	30	89	18	109	160	56	47
Alleghany Arsenal	57	40	30	20	36	56	75	52	159	207	101	44
Carlisle Barracks	9	9	1	45	48	77	95	78	241	125	69	30
Fort Delaware	29	42	14	45	29	55	50	96	246	120	60	21
Fort McHenry	54	29	38	30	34	46	95	40	224	142	78	15
Fort Monroe	28	86	21	24	25	93	28	58	242	124	77	8
Fort Moultrie	45	57	49	21	68	43	45	33	196	170	97	0
Fort Capron	42	46	55	56	40	36	44	41	248	118	140	0
[3] Key West Barracks	48	67	78	52	33	23	18	14	194	141	79	0
Fort Myers	77	33	42	23	57	30	60	44	151	215	88	0
Fort Dallas	125	206	253	138	154	61	93	57	270	96	57	0
Fort Brooke	33	62	58	55	27	41	42	48	279	87	93	0
[4] Fort Deynaud	46	30	43	19	10	18	22	25	126	87	48	0
Barrancas Barracks	89	17	15	39	21	42	29	113	121	245	94	0
Mount Vernon Arsenal	67	42	42	64	35	26	27	63	166	200	120	0
New Orleans	59	51	68	62	30	37	16	43	217	149	109	1
Baton Rouge	58	73	68	25	58	23	34	27	132	234	86	0
Fort Washita	27	57	32	71	58	36	39	26	141	225	78	8
Fort Smith	36	30	114	31	57	37	36	15	248	118	64	5
[5] Fort Gibson	72	49	33	62	48	28	12	27	184	151	56	7
[2] Jefferson Barracks (*b*)	1	38	27	81	7	41	3	42	178	62	47	1
[6] St. Louis Arsenal	32	33	8	30	69	55	24	83	221	114	41	16
Newport Barracks	40	21	17	25	71	77	88	26	149	217	65	22
[1] Fort Mackinac	24	11	34	20	15	20	114	35	115	124	63	39
[1] Fort Brady	47	5	14	22	125	31	7	23	165	109	44	21
Fort Snelling	44	20	19	65	55	64	22	80	223	143	46	26
Fort Ripley	44	53	17	23	65	28	50	55	206	160	41	21
Fort Ridgely	14	13	36	22	38	42	79	78	219	147	46	38
Fort Leavenworth	40	29	32	64	92	36	30	43	199	167	59	29
Fort Riley	64	28	14	16	97	50	65	32	204	162	55	22
Fort Kearny	73	16	13	13	49	23	68	111	211	155	59	21
Fort Laramie	29	16	90	13	11	20	157	23	222	144	40	27
Fort Pierre	36	27	53	73	30	15	36	93	230	136	37	19
Fort Arbuckle	69	29	65	62	91	11	20	19	306	60	80	15
Fort Belknap	98	17	33	18	129	28	29	14	236	130	71	9
Fort Chadbourne	81	31	26	36	150	12	17	13	216	150	66	5
Fort McKavett	30	62	14	64	117	42	17	18	249	117	61	6
[7] Corpus Christi	19	20	11	17	6	7	1	10	84	7	4	0
[8] Fort Mason	26	26	31	68	76	52	16	11	222	84	43	2
Fort Brown	34	25	43	139	66	4	4	50	201	165	81	0
[2] Fort Lancaster	20	5	9	12	105	3	4	4	49	135	19	0
Ringgold Barracks	37	39	57	157	22	1	15	36	231	135	60	0
[9] Camp Colorado	11	2	1	2	5	4	5	3	40	21	0	0

SUMMARY OF WEATHER OBSERVATIONS FOR 1856.

STATIONS.	WINDS. DAYS.								WEATHER. DAYS.		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow
Fort McIntosh	39	45	45	155	44	7	3	27	194	172	75	1
Fort Clark	55	27	167	66	35	1	11	4	203	163	51	1
Fort Thorn	33	20	16	15	6	2	112	112	266	100	26	3
Fort Duncan	7	1	8	211	1	1	4	39	147	219	40	1
Fort Davis	32	11	7	4	42	68	31	22	248	118	52	7
Fort Bliss	13	29	47	45	34	53	93	52	230	136	27	0
Fort Fillmore	12	20	61	37	88	32	94	19	251	115	26	6
Fort Craig	57	17	30	21	126	35	55	25	295	71	36	3
Fort Stanton	12	7	38	11	5	34	97	57	135	231	64	15
Albuquerque	64	37	51	17	79	34	55	20	256	110	27	6
Fort Marcy	27	59	52	52	25	52	50	47	238	128	35	36
Fort Union	43	16	13	33	66	45	87	62	260	106	41	23
Cantonment Burgwin	83	7	2	12	223	6	4	4	212	154	48	37
Fort Massachusetts	74	36	15	28	48	48	60	35	174	192	25	24
Fort Defiance	34	22	11	28	104	79	61	27	266	100	32	44
Fort Yuma	23	60	14	80	14	68	29	78	300	66	9	0
San Diego	16	45	55	34	19	91	77	29	200	166	40	0
Fort Tejon	1	15	1	87	3	18	1	138	304	62	58	12
Fort Miller	31	22	56	44	34	50	91	37	156	210	19	0
San Francisco	22	19	1	11	18	169	96	30	191	175	51	1
Benicia Barracks	2	1	79	19	5	24	232	4	287	79	45	1
[10] Fort Reading	56	3	1	1	23	0	4	3	68	23	10	0
Fort Humboldt	52	10	3	33	28	21	3	47	208	158	79	0
Fort Jones	49	4	3	6	91	72	127	13	221	145	55	10
[9] Fort Hoskins	1	11	5	0	0	2	10	23	18	43	21	0
[11] Fort Orford	57	1	2	65	9	5	2	44	110	103	62	0
[11] Fort Lane	11	23	6	25	5	42	27	59	133	80	41	0
[13] Fort Yamhill	3	1	1	8	8	17	5	9	12	49	23	5
Fort Vancouver	6	12	25	64	22	37	52	70	180	186	120	12
[12] Umpqua City	5	14	24	27	7	14	8	39	64	89	26	6
[14] Fort Dalles	0	29	6	14	14	31	14	9	86	35	14	7
Fort Steilacoom	35	18	16	13	67	60	93	34	137	229	127	4

Observations not taken.

a Last five days in September not observed.

b First five days in May not observed.

Winds and weather—months observed.

[1] January, February, March, April, May, June, July, August, September.

[2] May, June, July, August, September, October, November, December.

[3] January, February, March, April, May, June, August, September, October, November, December.

[4] January, February, March, April, May, November, December.

[5] January, February, April, May, June, July, August, September, October, November, December.

[6] January, February, March, April, May, June, July, August, September, October, November.

[7] January, February, March.

[8] March, April, May, June, July, August, September, October, November, December.

[9] November, December.

[10] January, February, March.

[11] January, February, March, April, May, June, July.

[12] August, September, October, November, December.

[13] November, December.

[14] February, March, April, December.

SUMMARY OF WEATHER OBSERVATIONS FOR 1857.

STATIONS.	WINDS. DAYS.								WEATHER. DAYS.		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W	NW	Fair.	Cloudy.	Rain.	Snow.
[1] Kennebec Arsenal	29	16	39	12	75	24	29	21	126	119	61	7
Fort Independence (*a*)	40	50	28	34	32	54	43	67	201	147	92	15
Fort Hamilton	39	47	22	26	17	72	27	115	151	214	65	17
[2] Fort Adams	10	20	6	30	9	29	14	33	89	64	30	3
Fort Columbus	22	57	16	31	34	81	49	75	191	174	69	16
West Point	93	9	14	35	100	22	32	59	206	159	87	25
Alleghany Arsenal	53	39	21	39	57	58	67	31	160	205	112	23
Carlisle Barracks	6	16	24	51	54	21	18	70	214	151	70	23
Fort Delaware	36	40	43	32	39	13	34	129	264	101	29	7
Fort McHenry	39	29	41	33	51	45	84	43	191	174	76	14
Fort Monroe	6	89	26	43	21	99	21	52	221	144	65	8
Fort Moultrie	76	50	33	17	67	41	43	35	217	148	79	1
Fort Capron	41	58	58	58	75	14	38	38	270	95	132	0
[5] Key West Barracks	67	51	72	53	32	7	12	8	117	187	72	0
Fort Myers	140	12	44	4	44	11	101	7	108	257	94	0
Fort Dallas	24	84	89	69	30	11	27	26	279	86	86	0
[6] Fort Deynaud (*b*)	38	84	26	32	15	24	13	9	137	105	75	0
[20] Fort Brooke	15	78	69	79	31	30	16	13	287	47	42	0
Mount Vernon Arsenal	59	72	23	67	39	20	24	60	178	187	107	0
New Orleans	58	54	64	74	20	31	10	50	252	113	102	0
Baton Rouge	43	73	81	32	65	27	26	16	118	247	97	0
Fort Washita	34	46	38	48	61	15	19	31	123	242	65	8
Fort Smith	27	39	115	47	55	22	35	11	235	130	50	0
[7] Fort Gibson (*c*)	22	17	10	9	11	3	5	5	36	26	3	5
Jefferson Barracks	1	36	56	136	12	32	14	78	221	144	59	10
Newport Barracks	32	33	14	9	64	115	57	41	146	219	78	3
Fort Snelling	38	10	18	59	73	58	16	79	231	134	38	26
[8] Fort Ripley	47	18	7	14	36	13	36	34	170	72	16	20
Fort Ridgely	8	11	36	33	30	32	102	70	212	153	48	36
Fort Randall	91	24	38	58	53	31	24	45	222	143	54	66
Fort Leavenworth	30	45	23	38	50	49	54	74	205	160	60	18
Fort Riley	79	39	16	38	91	33	41	27	234	131	58	14
Fort Kearny	63	23	11	11	48	32	73	105	210	155	38	10
Fort Laramie	63	25	59	12	23	13	114	57	257	108	18	20
[9] Fort Pierre (*d*)	27	10	32	9	8	4	22	22	71	63	20	11
Fort Arbuckle	62	31	71	77	62	16	21	24	277	88	79	5
Fort Belknap	82	16	5	58	148	29	5	18	205	160	69	2
Fort Chadbourne	63	13	29	75	99	20	21	46	202	163	82	1
Fort McKavett	19	69	17	108	83	28	8	32	169	196	58	6
[10] San Antonio	62	18	12	22	25	4	4	6	98	55	38	0
Fort Mason	46	12	20	41	155	41	22	27	203	162	48	5
Fort Lancaster	70	12	16	28	188	4	9	7	124	241	42	2
Camp Colorado (*e*)	22	22	51	29	27	22	32	20	129	227	46	1
Camp Verde	39	35	16	98	57	43	8	34	222	143	58	1
Fort Brown	32	22	54	152	66	3	1	36	228	137	48	0
Ringgold Barracks	27	27	34	184	28	3	4	57	227	138	40	0
[11] Camp Cooper	14	10	6	10	14	13	13	9	173	131	48	2

SUMMARY OF WEATHER OBSERVATIONS FOR 1857.

STATIONS.	WINDS. DAYS								WEATHER. DAYS		RAIN & SNOW DAYS	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.
Fort McIntosh	29	38	31	188	36	7	4	32	197	168	62	0
[3] Fort Clark	38	19	178	37	52	1	8	1	230	104	61	0
[12] Fort Thorn	21	20	19	22	26	39	169	12	263	71	35	0
Fort Duncan	0	17	22	115	0	0	1	35	106	259	42	0
[15] Camp Moore	3	12	18	28	18	28	33	11	136	15	5	0
[4] Fort Davis	21	9	5	2	20	39	49	22	232	103	46	4
[13] Fort Bliss (*f*)	13	19	58	48	32	48	79	36	223	108	28	0
[14] Fort Buchanan	5	19	37	31	17	37	10	4	116	37	37	0
Fort Fillmore	15	33	84	63	40	25	79	22	243	122	35	0
Fort Craig	66	32	13	31	73	59	46	41	294	71	35	7
Fort Stanton	26	13	68	27	1	27	115	75	151	214	63	16
Albuquerque	70	11	48	7	73	18	106	27	287	78	29	5
Fort Marcy	22	52	41	54	29	63	59	51	256	109	42	27
Fort Union	29	28	26	59	36	29	28	129	264	101	37	15
Cantonment Burgwin	90	4	53	7	151	4	31	4	182	183	42	28
Fort Massachusetts	46	48	28	21	55	78	68	14	168	197	27	29
Fort Defiance	35	15	14	11	45	56	133	56	230	135	44	26
[16] Fort Yuma	26	58	30	45	22	56	45	52	310	24	1	0
[16] San Diego (*h*)	2	24	63	39	8	95	75	16	192	129	24	0
Fort Tejon	19	26	20	108	56	39	51	46	272	93	25	5
Fort Miller	49	28	55	39	40	40	83	30	216	149	19	0
San Francisco	19	24	1	21	10	179	89	22	165	200	41	0
Benicia Barracks	5	4	74	16	3	34	220	8	291	74	42	0
[8] Fort Humboldt	54	16	4	43	32	23	4	22	140	194	55	0
[9] Fort Jones	29	57	8	36	124	29	11	41	208	126	38	12
Fort Hoskins	28	51	49	15	17	41	69	83	191	174	92	4
Fort Yamhill	5	8	11	19	17	85	30	93	199	166	139	15
[16] Fort Vancouver	5	16	49	27	24	28	86	23	162	172	115	6
Fort Umpqua	3	38	22	36	7	101	6	135	183	182	120	8
Fort Dalles	4	60	10	21	6	89	56	99	221	144	64	7
Fort Steilacoom	27	34	19	21	57	90	73	51	65	300	141	2
[19] Fort Walla-Walla (*g*)	0	34	0	45	38	192	7	45	200	104	98	3
[18] Fort Simcoe	22	11	37	19	32	30	55	13	174	70	20	5
[17] Fort Bellingham	28	18	2	36	19	90	3	6	132	82	61	2

Observations not taken.

a Seventeen last days of January.
b Last day of February.
c Nine last days of June wind only.
d Seventeen last days of May.
e Three days in April and six days in July.
f Thirteen days in April.
g Eleven days in January and ten days in June.
h Three days in July.

Winds and weather—months observed.

[1] May, June, July, August, Sept., Oct., Nov., Dec.
[2] August, September, October, November, December.
[3] January, February, March, April, May, June, August, September, October, November, December.
[4] January, February, March, May, June, July, August, September, October, November, December.
[5] Jan., Feb., Mar., April, May, June, July, Aug., Nov., Dec.
[6] Jan., Feb., March, April, May, June, July, August.
[7] January, May, June.
[8] Jan., Feb., March, April, May, June, Nov., Dec.
[9] January, February, March, April, May.
[10] August, September, October, November, December.
[11] Feb., Mar., April, May, June, July, Aug., Sept., Oct.
[12] January, April, May, June, July, August, September, October, November, December.
[13] January, February, March, May, June, July, August, September, October, November, December.
[14] August, September, October, November, December.
[15] January, February, March, April, May.
[16] January, February, March, April, May, June, August, September, October, November, December.
[17] Mar., April, May, June, July, Aug., Sept., Oct., Nov., Dec.
[18] April, May, June, July, Aug., Sept., Oct., Nov., Dec.
[19] January, February, March, June, July, August, September, October, November, December.
[20] January, February, March, April, May, June, July, August, September, November, December.

SUMMARY OF WEATHER OBSERVATIONS FOR 1858.

STATIONS.	WINDS. DAYS.								WEATHER. DAYS.		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.
[1] Kennebec Arsenal	39	29	30	10	50	34	28	23	148	95	44	13
Fort Independence	48	51	44	35	20	56	43	67	216	149	83	21
Fort Adams, (Dec. wanting)	25	25	17	48	44	39	18	117	136	198	94	14
Fort Hamilton	46	31	42	18	14	47	25	142	150	215	71	12
Fort Columbus	12	46	65	36	20	39	61	85	227	138	94	14
West Point	113	20	13	25	114	27	17	36	249	116	74	16
Alleghany Arsenal	50	61	18	23	41	92	40	41	155	210	114	33
Carlisle Barracks	6	12	9	46	39	64	150	30	271	94	90	18
Fort Delaware	35	46	39	31	37	17	24	135	267	98	44	13
Fort McHenry	46	39	35	26	42	50	81	48	181	184	104	9
Fort Monroe	14	116	34	30	15	86	22	39	210	155	65	4
Fort Moultrie	68	47	20	29	73	48	39	32	252	113	80	0
Key West Barracks	45	90	93	49	32	8	24	24	249	116	91	0
[2] Fort Capron	13	17	16	33	13	17	10	28	109	42	49	0
[3] Fort Myers	50	20	19	3	8	6	30	6	94	87	29	1
[4] Fort Dallas	11	24	31	20	23	11	19	12	122	29	29	2
[5] Fort Deynaud	15	14	12	9	11	5	11	12	66	23	19	0
Mount Vernon Arsenal	61	57	33	63	57	38	11	48	184	181	97	0
[6] Barrancas Barracks (*a*)	51	27	21	23	11	18	22	23	123	76	64	0
[7] Fort Brooke	11	38	43	47	38	20	4	14	183	29	56	0
New Orleans	47	50	65	66	32	36	13	55	235	130	111	0
[8] Baton Rouge	45	33	56	35	51	30	32	19	116	188	105	0
[9] Fort Washita (*b*)	9	3	5	11	6	4	2	5	26	33	8	0
[9] Fort Smith	2	2	11	6	2	3	4	1	39	23	12	1
Jefferson Barracks	6	46	30	176	7	25	10	62	200	165	86	11
Newport Barracks	48	25	22	15	121	57	55	22	123	242	77	9
[10] Fort Mackinac	26	18	36	16	23	13	32	20	79	105	43	25
[11] Fort Snelling	6	4	10	12	19	12	12	14	47	42	9	5
Fort Ripley	39	31	18	32	63	19	38	36	212	153	62	32
Fort Ridgely	22	35	74	62	24	22	62	64	204	161	72	47
Fort Randall	69	20	49	48	61	36	33	47	228	137	61	19
Fort Leavenworth	27	39	36	75	56	39	34	58	227	138	86	12
Fort Riley	58	47	27	41	82	33	41	33	222	143	80	15
Fort Kearny	52	34	17	36	46	61	31	63	122	243	67	17
Fort Laramie	29	13	36	24	31	23	160	49	280	85	28	18
[10] Fort Bridger	9	12	5	8	7	70	38	32	124	60	17	20
[7] Fort Arbuckle	14	3	2	11	12	6	8	3	35	27	15	3
[12] Fort Belknap	44	14	17	40	41	29	14	16	168	47	24	2
Fort Chadbourne	46	7	11	83	125	16	22	51	186	179	75	4
Fort McKavett (*c*)	7	58	11	152	25	55	3	54	122	243	62	5
San Antonio	69	52	63	117	36	7	1	20	241	124	52	0
[13] Camp Hudson	15	2	10	161	30	0	5	23	115	130	33	0
Fort Mason	36	4	7	33	171	52	18	42	221	144	37	5
Fort Lancaster	48	8	5	18	208	5	20	12	225	140	36	2
[14] Camp Verde	13	6	23	98	82	49	18	26	203	131	54	1
[15] Camp Colorado	8	70	43	46	19	17	17	28	127	207	54	4
Fort Brown	32	31	57	144	54	3	4	40	204	161	39	0

SUMMARY OF WEATHER OBSERVATIONS FOR 1858.

STATIONS.	WINDS. DAYS.								WEATHER. DAYS.		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.
Ringgold Barracks	50	44	39	176	8	4	13	31	232	133	50	0
Fort McIntosh	30	35	40	162	49	5	3	39	263	102	48	1
Fort Clark	41	131	79	9	7	3	9	14	215	150	83	0
Fort Duncan	0	12	9	123	0	2	1	51	152	213	36	0
Fort Davis	40	42	16	35	24	40	23	37	263	102	47	5
Fort Bliss	24	28	27	33	26	60	102	58	308	57	26	0
Fort Buchanan	57	70	60	25	74	60	15	5	283	82	64	9
Fort Thorn	39	33	17	10	21	53	158	34	292	73	31	2
Fort Fillmore	21	38	71	51	41	47	70	26	228	137	15	0
Fort Craig	37	43	26	50	68	48	52	42	315	50	27	6
Fort Stanton	7	10	73	19	5	22	142	82	152	213	56	29
Albuquerque	40	12	46	6	72	20	136	34	329	36	21	8
Fort Marcy	40	37	14	51	31	88	20	84	273	92	51	31
Fort Union	37	26	27	62	54	44	30	86	303	62	26	17
Cantonment Burgwin	54	10	67	4	132	15	64	13	163	202	53	43
[16] Fort Garland	4	12	22	9	13	16	13	2	74	18	3	7
[7] Fort Massachusetts	19	20	13	16	29	58	41	14	144	68	12	16
Fort Defiance	31	22	113	28	41	57	124	46	222	143	39	32
Fort Yuma	16	35	40	29	29	52	116	48	276	89	6	0
San Diego	2	33	61	64	1	114	69	20	182	183	44	0
Fort Tejon	8	1	2	8	15	149	127	55	277	88	46	12
Fort Crook	19	11	0	39	3	35	9	140	237	128	36	40
[8] Fort Miller (*c*)	15	8	44	16	15	10	56	6	71	99	9	1
San Francisco	18	24	5	12	12	183	94	24	182	183	52	0
Benicia Barracks	14	16	36	23	3	33	208	33	283	82	44	1
Fort Humboldt	53	20	14	31	21	43	7	27	157	208	87	2
Fort Yamhill	4	9	20	19	5	122	34	48	175	190	165	17
[16] Block House (*d*)	23	14	19	17	15	60	127	25	146	156	104	2
[3] Fort Jones	8	25	16	21	8	23	21	28	80	71	17	11
Fort Umpqua	0	29	50	7	0	128	12	126	188	177	149	3
Fort Vancouver	27	40	17	81	22	64	34	77	145	220	135	10
Fort Dalles	5	67	21	18	7	70	113	51	237	128	105	13
Fort Hoskins	43	25	16	18	22	47	63	73	177	188	148	11
Fort Steilacoom	23	37	17	33	38	77	76	67	138	227	130	12
Fort Walla-Walla	1	21	0	82	2	220	2	34	246	119	89	16
Fort Simcoe	10	11	21	13	50	68	90	20	230	135	63	27
Fort Bellingham	53	22	4	66	150	24	17	8	157	208	170	16
[17] Fort Cascades	4	17	23	16	135	104	26	20	121	124	172	6
Camp Floyd (*e*)	18	29	12	20	6	15	27	44	134	37	18	16
[3] Camp Scott (*f*)	7	8	8	4	20	68	40	8	128	47	14	24

Observations not taken.

a Fifteen days in June.
b Three days in December.
c Eleven days in June
d Four days in April.
e Thirteen days in July.
f Fourteen days in June.

Winds and weather—months observed.

[1] January, Feb., March, April, May, June, July, August.
[2] January, February, March, April, May.
[3] January, February, March, April, May, June.
[4] January, February, March, April, May.
[5] February, March, April.
[6] June, July, August, Sept., Oct., Nov., Dec.
[7] January, February, March, April, May, June, July.
[8] Jan., Feb., Mar., April, May, June, July, Oct., Nov., Dec.
[9] January, December.
[10] July, August, September, October, November, December.
[11] January, February, March.
[12] January, July, August, Sept., Oct., Nov., Dec.
[13] May, June, July, August, Sept., Oct., Nov., Dec.
[14] February, March, April, May, June, July, August, September, October, November, December.
[15] October, November, December.
[16] May, June, July, Aug., Sept., Oct., Nov., Dec.
[17] Mar., April, May, June, July, Aug., Sept., Oct., Nov., Dec.

SUMMARY OF WEATHER OBSERVATIONS FOR 1859.

STATIONS.	WINDS. DAYS								WEATHER. DAYS.		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy	Rain	Snow.
Fort Independence	26	57	46	17	20	86	73	39	249	116	90	21
[1] Fort Adams	36	24	24	25	37	73	44	38	168	136	98	11
Fort Hamilton	34	26	26	47	17	54	35	126	216	149	104	14
Fort Columbus	13	36	109	45	8	23	67	66	221	144	126	15
West Point	118	17	9	16	97	38	24	46	266	99	72	16
Alleghany Arsenal, (Oct. wanting).	36	63	5	54	39	99	11	44	166	168	107	27
[2] Carlisle Barracks	0	17	19	35	28	75	119	39	229	105	100	13
[3] Fort Delaware	2	18	15	6	14	8	11	73	110	41	29	1
[4] Fort McHenry (*a*)	14	21	11	17	26	16	31	22	73	86	72	9
[5] Fort Monroe	11	80	37	21	25	91	17	40	208	129	53	3
Fort Moultrie	59	49	25	28	58	47	31	49	263	102	94	0
Key West Barracks	83	98	78	17	44	5	22	16	304	61	52	2
Mount Vernon Arsenal	95	43	51	51	56	20	16	37	191	174	96	1
Barrancas Barracks	93	50	45	53	32	23	23	47	239	126	125	0
New Orleans	57	52	77	58	29	22	27	42	241	124	103	0
[1] Baton Rouge	54	34	57	45	54	14	22	22	142	162	91	0
[6] Fort Washita (*b*)	20	2	8	17	47	11	13	16	94	82	22	2
[7] Fort Smith									128	55	28	2
Jefferson Barracks	25	45	15	12	21	38	22	77	145	220	59	8
Newport Barracks	36	25	31	15	113	46	80	18	139	226	92	19
Fort Mackinac	50	34	57	34	27	33	70	59	181	184	70	60
Fort Ripley	64	32	16	66	54	34	48	41	207	158	52	42
Fort Ridgely	14	31	90	40	13	33	84	57	173	192	83	54
Fort Randall	78	13	37	46	75	24	37	50	233	132	41	28
Fort Leavenworth	10	49	23	80	42	43	35	76	195	170	81	26
Fort Riley	57	49	20	36	84	47	50	22	209	156	52	16
Fort Kearny	48	54	16	61	13	44	26	52	124	241	45	27
Fort Laramie	26	33	46	26	11	37	144	41	223	142	27	16
Fort Arbuckle	33	40	20	62	112	38	16	45	270	95	78	3
Fort Chadbourne	33	9	11	127	122	15	19	34	154	211	66	8
[8] Fort McKavett	3	17	0	25	6	14	2	17	21	57	12	0
Fort Quitman	37	16	36	74	45	31	85	50	181	184	65	2
San Antonio	82	27	38	77	109	12	8	13	269	96	46	1
[9] Camp Stockton (*c*)	1	10	4	35	14	27	9	16	72	43	23	1
[10] Camp Hudson	21	7	16	202	12	6	2	38	179	155	43	2
Fort Lancaster	33	9	7	165	79	5	16	27	267	98	28	3
Camp Verde	26	22	14	171	60	17	3	47	222	143	50	5
Camp Colorado	1	8	56	93	40	17	55	26	116	249	71	6
[11] Camp Cooper	22	18	18	51	21	12	4	6	118	35	24	0
Fort Inge	26	52	85	77	25	21	20	30	194	171	43	0
Fort Clark	16	58	27	174	14	5	10	18	174	191	40	0
[12] Fort Duncan	5	15	2	51	0	1	2	20	56	65	7	0
Fort Davis	23	29	38	30	44	70	57	31	220	145	70	4
Fort Bliss	51	38	76	38	61	16	13	72	252	113	32	1
Fort Buchanan	32	69	52	37	48	87	25	10	183	182	48	10
Fort Fillmore	19	28	47	53	45	61	90	29	267	98	24	3
Fort Craig	40	19	15	44	90	46	41	69	305	60	59	1

SUMMARY OF WEATHER OBSERVATIONS FOR 1859.

STATIONS.	WINDS. DAYS.								WEATHER. DAYS.		RAIN & SNOW. DAYS.	
	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Fair.	Cloudy.	Rain.	Snow.
[13] Fort Mojave	38	7	7	32	37	21	4	8	129	24	7	0
Fort Stanton	8	11	73	12	10	13	155	52	156	209	64	9
Albuquerque	71	13	46	11	47	11	151	14	252	113	13	0
Fort Marcy	30	16	3	43	24	75	40	123	251	114	59	23
Fort Union	56	30	11	50	48	57	17	102	284	81	31	7
Cantonment Burgwin	44	7	55	14	89	45	92	18	157	208	75	47
Fort Garland	0	34	81	50	43	79	72	5	292	73	35	11
[14] Fort Defiance	28	9	12	23	37	51	144	32	196	139	63	24
Fort Yuma	5	35	42	41	26	57	134	24	258	107	6	0
[15] San Diego	3	31	27	40	2	56	34	21	86	126	13	0
[5] Fort Tejon	91	17	10	24	51	24	68	49	270	67	16	7
Fort Crook	24	2	22	12	8	50	111	25	232	133	41	49
San Francisco	15	21	10	11	5	43	247	13	182	183	64	0
[16] Fort Ter-Waw	0	9	34	26	0	58	95	54	161	114	53	0
Benicia Barracks	14	19	30	12	13	104	90	83	263	102	41	0
Fort Humboldt	49	11	6	29	23	43	9	74	166	199	103	22
Fort Yamhill	2	8	22	44	8	91	57	49	167	198	141	31
Fort Umpqua	0	51	12	10	0	125	30	144	170	195	143	14
Fort Hoskins	38	25	4	14	11	57	65	94	164	201	130	43
Fort Vancouver	27	52	53	27	24	50	78	53	155	210	149	4
[17] Block House	21	28	20	37	14	67	69	47	153	150	138	6
Fort Dalles, (April wanting)	5	60	17	23	11	60	88	58	218	117	90	38
Fort Steilacoom	10	75	23	28	25	64	40	74	193	172	91	17
Fort Walla-Walla	2	29	0	109	0	195	3	26	265	100	63	19
[18] Fort Bellingham	34	3	0	10	109	20	13	4	115	97	90	16
Fort Cascades	34	58	22	13	87	114	32	5	132	233	130	19
[12] Fort Simcoe	0	0	1	0	13	24	12	1	49	71	18	36
[4] Fort Townsend (*d*)	12	6	5	40	24	21	22	36	90	67	21	1
[19] Camp Semiahmoo	37	58	29	37	38	48	46	10	178	128	64	1
Camp Floyd	86	32	26	14	67	15	75	50	288	77	48	54
[10] Fort Bridger	39	16	4	1	0	27	87	81	136	137	29	22

Observations not taken.

a Twenty-two days in June.
b Five days in December.
c Seven days in September.
d Five days in January and seven days in March.

Winds and weather—months observed.

[1] January, February, March, April, May, June, July, August, September, October.
[2] January, February, March, April, May, June, July, August, September, October, November.
[3] January, February, March, April, May.
[4] January, February, March, April, May, June.
[5] January, March, April, May, June, July, August, September, October, November, December.
[6] February, March, April, November, December.
[7] February, March, April, May, June, July, August, September, October, November, December.
[8] January, February, March.
[9] July, August, September, October, November, December.
[10] February, March, April, May, August, September, October, November, December.
[11] May, June, July, September, October.
[12] January, February, March, April.
[13] August, September, October, November, December.
[14] January, February, March, April, May, June, July, August, September, October, December.
[15] June, July, August, September, October, November, December.
[16] April, May, June, July, August, September, October, November, December.
[17] January, February, March, April, May, June, September, October, November, December.
[18] January, February, March, April, May, June, July.
[19] March, April, May, June, July, August, September, October, November, December.

CONSOLIDATED TABLE OF MEAN TEMPERATURES FOR MONTHS, SEASONS, AND

Stations.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	
	° ′	° ′	*Feet.*											
Fort Kent	47 15	68 35	575	11.10	11.63	23.53	35.28	46.86	58.99	62.49	63.55	51.59	40.08	1
Fort Fairfield	46 46	67 49	415	15.66	13.66	24.80	36.22	47.84	57.06	62.78	64.90	49.93	40.92	2
Hancock Barracks	46 7	67 49	620	14.72	16.40	27.57	39.42	50.49	60.28	65.18	64.53	55.25	43.37	3
Fort Sullivan	44 54	66 58	70	22.37	23.54	30.79	40.44	49.23	56.76	62.33	62.42	57.25	47.95	4
Fort Preble	43 39	70 20	20	22.78	24.52	32.53	42.96	52.82	63.11	68.20	66.41	59.26	49.26	5
Fort Constitution	43 4	70 49	40	24.95	26.21	33.71	42.96	53.00	61.80	67.10	65.07	58.95	49.47	6
Fort Independence	42 20	71 0	50	26.83	27.67	35.46	45.57	57.04	65.57	71.08	69.10	62.78	53.02	7
Watertown Arsenal	41 21	71 9	.....	27.23	25.40	33.75	44.98	55.17	64.74	70.60	69.02	61.71	48.84	8
Fort Adams	41 29	71 20	40	30.34	30.02	36.55	45.11	54.98	65.43	72.07	70.89	63.84	53.76	9
Fort Wolcott	41 30	71 20	20	29.49	30.48	37.23	45.73	55.61	64.52	70.41	69.59	63.22	54.30	10
Fort Trumbull	41 21	72 6	23	29.10	29.56	36.09	46.85	56.30	66.12	71.65	70.09	63.27	52.97	11
Fort Columbus	40 42	74 1	23	30.18	30.44	38.28	48.65	59.30	68.93	74.83	73.16	65.78	54.19	12
Fort Hamilton	40 37	74 2	25	31.75	30.93	38.05	47.62	57.86	67.83	73.23	72.98	66.57	55.24	13
West Point	41 23	74 0	167	28.25	28.80	37.63	48.70	59.82	68.41	73.75	71.83	64.31	53.11	14
Watervliet Arsenal	42 43	73 43	50	22.97	23.81	34.02	45.84	58.70	68.22	73.61	70.93	61.84	49.38	15
Plattsburg Barracks	44 41	73 25	186	18.37	20.96	29.88	42.63	54.51	63.60	68.81	67.86	58.91	46.49	16
Madison Barracks	43 57	76 15	262	22.19	24.30	33.22	44.69	54.87	64.43	69.86	69.02	60.35	50.02	17
Fort Ontario	43 20	76 40	250	23.98	24.00	32.00	42.62	52.04	63.26	69.18	68.31	60.75	47.96	18
Fort Niagara	43 18	79 8	250	26.88	26.93	34.49	44.24	55.77	65.16	70.35	69.73	61.85	50.48	19
Buffalo Barracks	42 53	78 58	660	27.30	24.92	31.05	44.20	52.95	64.06	68.21	68.53	62.02	45.91	20
Alleghany Arsenal	40 32	80 2	704	29.30	31.16	39.02	49.96	60.92	69.22	72.98	71.21	63.58	50.91	21
Carlisle Barracks	40 12	77 14	500	29.24	30.95	38.70	50.18	60.41	70.45	74.08	71.78	64.43	52.22	22
Fort Mifflin	39 53	75 13	20	33.21	32.21	40.30	50.65	61.55	71.95	76.91	74.41	68.70	55.81	23
Fort Delaware	39 35	75 34	10	33.89	35.84	42.99	52.34	65.31	73.77	77.99	75.98	70.92	57.99	24
Fort McHenry	39 17	76 35	36	32.86	34.23	42.29	52.71	63.10	71.58	76.54	74.66	67.82	55.68	25
Fort Severn	38 58	76 27	20	32.31	35.46	42.85	54.05	64.48	72.72	77.92	76.03	68.82	57.62	26
Washington City	38 53	77 2	90	34.09	36.74	45.36	55.70	66.26	74.44	78.26	76.29	67.76	56.70	27
Fort Washington	38 43	77 6	60	35.50	38.59	46.86	57.14	68.28	76.35	79.99	76.96	69.57	59.80	28
Bellona Arsenal	37 20	77 25	120	38.73	41.97	50.30	58.36	67.79	76.58	79.19	77.90	70.57	60.08	29
Fort Monroe	37 0	76 18	8	40.54	41.67	48.29	56.17	66.14	74.22	78.23	77.25	72.03	61.93	30
Fort Macon	34 41	76 40	20	45.17	44.09	49.49	60.00	68.89	76.87	79.80	78.87	74.64	64.42	31
Fort Johnston	34 0	78 5	20	49.03	50.53	56.34	64.17	72.86	78.92	81.48	80.17	76.04	67.07	32
Augusta Arsenal	33 28	81 53	600	46.73	50.70	55.80	65.15	72.17	79.05	81.92	79.66	73.82	63.49	33
Fort Moultrie	32 45	79 51	25	50.73	52.41	58.68	65.44	73.05	79.19	81.72	81.11	76.89	67.88	34
Oglethorpe Barracks	32 5	81 7	40	52.43	55.05	58.64	67.15	75.46	79.84	81.46	80.81	77.02	67.12	35
Fort Marion	29 48	81 35	25	57.03	59.94	63.34	68.78	73.50	79.64	80.90	80.56	78.60	72.42	36
Fort Shannon	29 34	81 48	25	57.26	58.29	64.14	71.13	76.45	80.26	81.20	80.19	78.63	70.47	37
Fort Heileman	29 48	82 5	.....	56.32	56.45	64.28	70.58	75.38	81.88	80.25	79.71	77.07	70.04	38
New Smyrna	28 54	81 2	20	62.40	63.74	67.57	73.60	74.58	78.84	79.77	78.81	78.16	71.96	39
Fort Pierce (Capron)	27 30	80 20	30	62.75	64.44	69.77	73.63	76.92	79.02	82.50	82.38	80.85	75.00	40
Fort Dallas	25 55	80 20	20	66.38	66.56	70.33	75.57	77.97	80.57	82.12	81.78	79.59	77.96	41
Key West Barracks	24 32	81 48	10	68.69	69.88	72.90	75.38	79.10	81.63	83.00	82.96	81.79	78.11	42
Fort Myers	26 38	82 0	50	63.69	67.98	72.19	73.86	80.13	81.25	82.87	83.15	81.75	77.76	43
Fort Brooke	28 0	82 28	20	61.53	63.54	67.34	72.25	76.64	79.46	80.72	80.43	79.35	74.02	44
Fort Meade	28 1	82 0	80	58.40	63.23	69.02	69.89	76.69	78.24	79.76	80.03	79.18	73.81	45
Fort Micanopy	29 30	82 28	60	60.50	60.44	67.40	72.03	76.62	79.28	80.02	79.34	77.89	70.49	46
Fort King	29 10	82 10	50	58.48	58.21	64.36	71.41	76.39	79.78	80.67	80.09	78.18	70.56	47
Cedar Keys	29 7	83 3	35	58.55	38.43	65.66	69.89	74.75	77.55	80.30	79.37	78.99	71.83	48
Fort Wacassassa	29 15	83 0	.....	58.78	57.89	66.87	70.45	73.53	77.11	79.16	79.35	78.46	69.71	49

YEARS, AND OF EXTREMES OF TEMPERATURE; CORRECTED FROM REPORT OF 1856.

	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	No. of years.	Locality.
1	27.97	11.36	35.22	61.68	39.88	11.36	37.04	98	—39	137	3	Mouth of Fish river, Maine.
2	30.05	13.53	36.29	61.58	40.30	14.28	38.11	98	—28	126	1¾	Aroostook river, Maine.
3	30.84	18.12	39.15	63.33	43.15	16.41	40.51	99	—26	125	17	Houlton, Maine.
4	37.35	25.79	40.15	60.50	47.52	23.90	43.02	94	—19	113	25	Eastport, Maine.
5	37.80	26.80	42.77	65.91	48.77	24.70	45.52	96	—14	110	22	Portland harbor, Maine.
6	38.75	28.63	43.22	64.65	49.05	26.60	45.88	96	—12	108	25	Portsmouth harbor, New Hampshire.
7	41.54	31.39	46.02	68.58	52.45	28.63	48.92	99	—13	112	17	Boston harbor, Massachusetts.
8	37.58	29.02	44.63	68.12	49.38	27.22	47.34	97	—12	109	6	Watertown, Massachusetts.
9	42.86	33.66	45.55	69.46	53.48	31.34	49.96	91	— 5	96	10	Newport harbor, Rhode Island.
10	43.03	34.29	46.19	68.17	53.52	31.42	49.83	92	— 6	98	14	Newport harbor, Rhode Island.
11	42.34	31.11	46.41	69.28	52.86	29.92	49.62	93	— 8	101	11	New London, Connecticut.
12	43.32	33.52	48.74	72.31	54.43	31.38	51.72	104	— 6	110	33	New York harbor, New York.
13	45.55	34.28	47.84	71.35	55.79	32.32	51.82	99	— 1	100	12	New York harbor, New York.
14	42.23	31.98	48.72	71.33	53.22	29.68	50.74	100	—11	111	31	West Point, New York.
15	38.90	27.14	46.19	70.92	50.04	24.64	47.95	99	—32	131	31	West Troy, New York.
16	34.62	21.32	42.34	66.76	46.67	20.22	44.00	100	—24	124	11	Plattsburg, New York.
17	37.96	25.98	44.26	67.77	49.44	24.16	46.41	94	—22	116	16	Sackett's Harbor, New York.
18	37.97	26.21	43.70	66.92	48.57	24.73	45.98	96	— 7	103	9	Oswego, New York.
19	39.53	29.66	44.83	68.41	50.62	27.82	47.92	95	— 6	101	14	Niagara river, New York.
20	35.83	30.04	42.73	66.93	47.92	27.42	46.25	92	— 4	96	4½	Buffalo, New York.
21	39.80	31.35	49.97	71.14	51.43	30.60	50.78	100	—18	118	22	Pittsburg, Pennsylvania.
22	39.50	31.16	49.76	72.10	52.05	30.45	51.09	99	—16	115	13	Carlisle, Pennsylvania.
23	45.50	35.07	50.83	74.42	56.67	33.50	53.85	99	4	95	10	Near Philadelphia, Pennsylvania.
24	46.59	39.33	53.55	75.91	58.50	36.35	56.08	98	8	90	6½	Near Newcastle, Delaware.
25	45.10	35.63	52.70	74.26	56.20	34.24	54.35	102	—10	112	24	Near Baltimore, Maryland.
26	46.84	36.70	53.79	75.56	57.76	34.82	55.48	99	1	98	8	Near Annapolis, Maryland.
27	44.83	37.32	55.77	76.33	56.43	36.05	56.14	98	—14	112	12	Washington City, D. C.
28	47.42	37.99	57.43	77.77	58.93	37.36	57.87	103	— 4	107	15	Potomac river, Maryland.
29	50.59	43.43	58.82	77.89	60.41	41.38	59.62	96	4	92	8	Near Richmond, Virginia.
30	51.41	43.17	56.87	76.57	61.79	41.79	59.25	102	2	100	30	Old Point Comfort, Virginia.
31	56.51	48.00	59.46	78.51	65.19	45.75	62.23	96	19	77	5	Near Beaufort, North Carolina.
32	59.26	52.24	64.46	80.19	67.46	50.60	65.68	102	18	84	18	Smithville, North Carolina.
33	53.80	46.77	64.37	80.21	63.70	48.07	64.09	103	— 2	105	21	Near Augusta, Georgia.
34	59.62	52.51	65.72	80.67	68.10	51.88	66.59	99	6	93	28	Charleston harbor, South Carolina.
35	59.63	52.69	67.08	80.70	67.92	53.39	67.27	102	16	86	9	Savannah, Georgia.
36	63.58	57.26	68.54	80.37	71.53	58.08	69.63	95	23	72	20	St. Augustine, Florida.
37	61.50	56.00	70.57	80.55	70.20	57.18	69.63	99	28	71	6	Pilatka, Florida.
38	69.57	51.94	70.08	80.61	72.23	54.90	69.46	.....	.....	.....	2	Interior of Florida.
39	67.17	63.51	71.92	79.14	72.43	63.22	71.68	95	31	64	3	New Smyrna, Florida.
40	68.56	62.63	73.44	81.30	74.80	63.27	73.20	97	29	68	5	Indian river, Florida.
41	71.27	66.80	74.62	81.49	76.27	66.58	74.74	95	35	60	4	Miami river, Florida.
42	74.66	70.29	75.79	82.53	78.19	69.62	76.53	96	44	52	14	Key West, Florida.
43	71.50	64.72	75.39	82.41	77.00	65.46	75.06	95	31	64	4	Charlotte's harbor, Florida.
44	66.94	61.99	72.08	80.20	73.44	62.35	72.02	96	26	70	25	Tampa Bay, Florida.
45	68.48	61.08	71.87	79.34	73.82	60.90	71.48	96	24	72	3¾	Interior of Florida.
46	61.01	56.00	72.02	79.55	69.80	58.98	70.09	.....	.....	.....	4½	Interior of Florida.
47	63.19	58.55	70.72	80.18	70.64	58.41	66.99	106	11	95	6	Interior of Florida.
48	62.29	57.68	70.10	79.07	71.04	58.22	69.61	86	34	52	2½	Gulf coast of Florida.
49	59.70	56.68	70.28	78.54	69.29	57.78	68.98	.....	.....	.....	.....	Interior of Florida.

CONSOLIDATED TABLE OF MEAN TEMPERATURES FOR MONTHS, SEASONS, AND

Stations.	Lat.	Long.	Altitude above sea	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	
	° ′	° ′	*Feet.*											
Fort Fanning	29 35	83 0	50	59.68	58.26	67.00	70.67	75.66	79.12	81.55	82.20	80.45	72.13	1
Fort Gamble	30 20	84 0	.....	55.53	60.55	68.36	71.03	75.17	79.70	78.94	79.40	78.20	67.41	2
Barrancas Barracks	30 18	87 27	20	53.61	55.67	61.80	68.45	75.45	80.80	82.19	81.64	78.47	70.08	3
Fort Morgan	30 14	88 0	20	55.19	50.18	53.28	65.54	75.61	79.19	81.59	80.30	77.26	71.26	4
Mount Vernon Arsenal	31 12	88 2	200	50.44	53.69	60.26	66.87	73.92	78.03	79.39	79.19	75.74	65.93	5
Fort Pike	30 10	89 38	10	54.76	56.86	62.34	70.55	77.03	82.19	83.39	82.94	79.16	70.53	6
Fort Wood	30 8	89 51	20	54.77	56.44	60.19	70.88	77.91	81.30	82.66	82.14	78.90	68.60	7
New Orleans	29 57	90 0	10	55.27	58.35	64.15	70.06	75.62	81.11	82.79	82.87	78.94	70.75	8
Fort St. Philip	29 25	89 30	Sea level	59.47	60.14	62.37	72.86	77.00	81.99	82.97	81.45	80.56	72.96	9
Baton Rouge Barracks	30 26	91 18	41	53.47	55.02	61.93	69.30	75.60	80.56	81.56	81.26	77.14	67.58	10
Fort Jesup	31 33	93 32	80	50.63	52.69	59.15	67.80	73.72	80.25	82.22	81.35	76.09	65.90	11
Fort Towson	34 0	95 33	300	43.14	45.97	53.40	64.00	69.77	76.97	80.82	79.69	72.53	61.04	12
Fort Washita	34 14	96 38	645	42.94	47.07	53.31	63.18	69.95	76.23	80.78	80.86	74.84	62.87	13
Fort Smith	35 23	94 29	460	40.18	43.89	51.58	62.38	68.22	75.55	79.19	78.07	72.23	59.65	14
Fort Gibson	35 47	95 10	560	40.15	42.41	52.19	62.50	68.79	76.49	80.76	80.24	73.50	61.56	15
Fort Scott	37 45	94 35	1,000	32.73	34.98	43.13	55.72	65.44	72.11	77.22	75.53	68.62	55.28	16
Jefferson Barracks	38 28	90 15	472	32.58	35.16	45.04	57.06	66.32	74.11	78.00	76.46	67.74	55.68	17
St. Louis Arsenal	38 40	90 5	450	31.44	33.43	42.30	55.08	65.07	74.20	78.72	76.16	69.58	54.20	18
Newport Barracks	39 5	84 29	500	34.04	36.94	45.46	53.39	64.72	73.49	76.48	75.02	68.21	55.81	19
Detroit Barracks	42 20	82 58	580	27.01	26.62	35.40	45.82	56.02	65.62	69.71	67.47	60.05	47.69	20
Fort Gratiot	42 55	82 23	598	25.30	25.26	32.61	44.08	53.80	63.44	69.52	67.10	60.31	48.66	21
Fort Mackinac	45 51	84 33	728	19.40	17.60	25.68	37.03	47.47	57.21	64.59	64.05	55.08	45.17	22
Fort Dearborn	41 52	78 35	591	23.60	24.74	32.30	46.08	56.32	62.67	70.67	68.55	60.10	48.52	23
Fort Brady	46 30	84 43	600	17.22	16.23	25.15	38.31	49.14	59.01	64.73	62.90	54.57	43.56	24
Fort Wilkins	47 30	88 0	623	23.40	21.40	28.94	38.07	48.41	56.68	63.55	62.17	55.79	42.91	25
Fort Howard	44 30	88 5	620	18.93	19.96	31.33	43.43	55.79	66.17	71.49	67.88	57.23	46.54	26
Fort Winnebago	43 31	98 28	770	19.52	18.50	32.60	47.20	56.66	65.63	70.95	67.31	57.83	47.22	27
Fort Crawford	43 5	91 0	642	19.43	21.67	34.53	50.88	60.58	69.55	75.26	72.03	61.54	48 92	28
Fort Armstrong	41 30	90 40	528	22.80	24.68	37.82	51.06	62.68	71.39	76.49	74.47	62.97	52.26	29
Fort Atkinson	43 0	92 0	700	21.15	20.34	29.59	49.85	58.44	64.76	72.44	68.67	61.50	45.65	30
Fort Des Moines	41 32	93 38	780	27.43	29.98	39.54	55.77	59.22	66.43	76.49	71.73	61.17	44.68	31
Fort Ripley	46 19	94 19	1,130	7.87	11.87	24.37	40.75	52.87	62.78	67.30	64.74	56.67	44.00	32
Fort Snelling	44 53	93 10	820	13.88	17.37	31.31	46.34	58.97	68.46	73.37	70.05	58.86	47.15	33
Fort Leavenworth	39 21	94 44	896	28.37	31.15	42.22	55.49	63.57	71.31	76.67	74.16	66.16	54.46	34
Council Bluffs	41 30	95 48	1,250	19.36	25.23	33.77	51.84	62.23	72.98	75.88	75.44	65.63	52.00	35
Fort Kearny	40 38	98 57	2,360	21.14	26.11	34.50	47.13	58.81	68.51	73.56	72.33	64.42	49.56	36
Fort Laramie	42 12	104 31	4,519	31.03	32.60	36.81	47.60	56.11	67.34	74.70	73.78	64.21	50.91	37
Fort Arbuckle	34 27	97 9	1,000	39.10	43.69	53.22	61.85	69.93	76.33	81.71	82.09	74.49	62.74	38
Fort Belknap	33 8	98 48	1,600	42.80	47.47	56.90	65.79	72.00	77.98	82.37	82.50	77.33	66.81	39
Fort Worth	32 40	97 25	1,100	43.58	48.78	56.30	62.56	70.48	77.44	80.99	82.87	76.54	62.22	40
Phantom Hill	32 30	99 45	2,300	42.92	49.31	58.02	66.39	71.93	76.46	80.73	81.49	74.43	63.59	41
Fort Chadbourne	32 2	100 5	2,120	44.29	46.75	58.01	65.52	69.51	73.79	77.87	78.64	71.98	62.45	42
Fort Graham	31 56	97 26	900	47.95	52.14	58.09	64.06	72.59	79.45	83.13	84.70	77.46	67.64	43
Fort Gates	31 26	97 49	1,000	52.02	50.90	59.18	63.67	71.53	78.93	82.92	85.09	79.18	67.25	44
Fort Croghan	30 40	98 31	1,000	49.29	52.21	60.38	65.65	71.54	78.34	81.06	82.56	77.53	67.30	45
Fort Martin Scott	30 10	99 5	2,300	46.18	52.45	57.61	62.47	68.50	75.48	77.25	78.14	72.95	62.04	46
Fort McKavett	30 55	100 5	2,060	44.75	46.87	57.39	66.25	72.16	74.93	78.46	79.51	73.38	65.89	47
San Antonio	29 25	98 25	600	53.26	57.54	63.19	69.44	76.40	80.52	82.03	83.90	79.78	72.18	48
Fort Merrill	28 17	98 0	150	54.82	57.10	68.66	73.27	79.72	81.88	83.19	84.43	79.92	74.06	49

YEARS, AND OF EXTREMES OF TEMPERATURE; CORRECTED FROM REPORT OF 1856.

	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	No. of years.	Locality
1	60.62	55.03	71.11	80.96	71.07	57.66	70.20	.....	.....	.....	2¼	Interior of Florida.
2	59.48	54.64	71.52	79.35	68.36	56.91	69.04	.....	.....	.....	2	Near Tallahassee, Florida.
3	61.02	55.55	68.57	81.54	69.86	54.94	68.73	104?	10	94	17	Pensacola, Florida.
4	59.00	52.00	64.81	80.36	69.17	52.46	66.70	88	32	56	.....	Mobile Point, Alabama.
5	56.47	50.97	67.02	78.87	66.05	51.70	65.91	99	9	90	14	Near Mobile, [32 m.,] Alabama.
6	62.80	55.85	69.97	82.84	70.83	55.82	69.86	98	21	77	14	Petites Coquilles Island, Louisiana.
7	62.20	55.01	69.66	82.03	69.90	55.41	69.25	100	14	86	6½	Petites Coquilles Island, Louisiana.
8	62.44	55.98	69.94	82.26	70.71	56.53	69.86	100	17	83	20	New Orleans, Louisiana.
9	62.98	58.97	70.78	82.14	72.17	59.53	71.15	.....	.....	.....	.....	Mississippi river, Louisiana.
10	59.90	54.15	68.94	81.13	68.21	54.21	68.12	100	8	92	24	Baton Rouge, Louisiana.
11	56.66	50.21	66.89	81.27	66.22	51.18	66.39	100	7	93	23	Near Natchitoches, [25 m.,] Louisiana.
12	50.24	42.05	62.39	79.16	61.27	43.72	61.64	100	— 3	103	20	Choctaw Nation, near Red river.
13	51.61	42.09	62.15	79.29	63.11	44.03	62.15	106	— 4	110	12	Near Washita river, Chickasaw Nation.
14	48.36	39.27	60.73	77.60	60.08	41.11	59.88	102	— 4	106	12	Arkansas river, Arkansas.
15	49.72	40.84	61.16	79.16	61.66	41.13	60.76	116	—15	131	27½	Neosho river, Cherokee Nation.
16	41.91	31.09	54.76	74.95	55.27	32.93	54.48	98	—10	108	10	Near Marmiton river, Kansas.
17	43.15	33.81	56.14	76.19	55.52	33.85	55.43	102	—18	120	26	Near St. Louis, Missouri.
18	42.55	31.93	54.15	76.36	55.44	32.27	54.56	107	—18	125	12	St. Louis, Missouri.
19	44.71	35.54	54.52	75.00	56.24	35.51	55.32	98	—15	113	7½	Newport, Kentucky.
20	38.26	26.88	45.75	67.60	48.67	26.84	47.21	94	—13	107	13	Detroit, Michigan.
21	38.24	27.14	43.50	66.69	49.07	25.90	46.29	96	—18	114	17½	St. Clair river, Michigan.
22	34.30	23.12	36.73	61.95	44.85	20.04	40.89	90	—27	117	24	Island of Mackinac, Michigan.
23	37.90	29.37	44.90	67.33	48.84	25.90	46.75	94	—22	116	4½	Chicago, Illinois.
24	32.50	21.50	37.53	62.21	43.54	18.32	40.40	98	—33	131	31	Sault Ste. Marie, Michigan.
25	30.17	20.55	38.47	60.80	42.96	21.78	41.00	94	— 9	103	2	Copper harbor, Michigan.
26	34.26	20.83	43.52	68.51	46.01	19.91	44.49	100	—38	138	21	Green Bay, Wisconsin.
27	32.14	21.33	45.49	67.96	45.73	19.78	44.74	104	—29	133	16	Fox river, Wisconsin.
28	35.13	22.65	48.66	72.28	48.53	21.25	47.68	100	—32	132	19	Prairie du Chien, Wisconsin.
29	39.02	27.16	50.52	74.12	51.42	24.88	50.23	96	—24	120	11½	Rock Island, Illinois.
30	31.25	20.38	45.96	68.62	46.13	20.62	45.33	95	—22	117	4½	Turkey river, Iowa.
31	35.31	29.20	51.51	71.55	47.05	28.87	49.74	98	— 6	104	2	Des Moines, Central Iowa.
32	28.06	10.28	39.33	64.94	42.91	10.01	39.30	97	—50	147	6	Upper Mississippi river, Minnesota.
33	31.67	16.89	45.54	70.61	45.89	16.05	44.52	100	—40	140	35¾	Mouth of St. Peter's river, Minnesota.
34	40.36	29.77	53.76	74.05	53.66	29.76	52.81	105	—30	135	24½	Missouri river, Kansas.
35	36.45	20.60	49.28	74.76	51.36	21.73	49.28	108	—21	129	7	Missouri river, Nebraska.
36	34.07	21.87	46.81	71.47	49.35	23.04	47.67	102	—28	130	6½	Platte river, Nebraska.
37	35.83	27.98	46.84	71.94	50.32	30.54	49.91	104	—29	133	6	Laramie and Platte rivers, Nebraska.
38	49.28	39.56	61.67	80.04	62.17	40.78	61.17	109	— 4	113	4¼	Near Washita river, Indian Territory
39	51.31	44.66	64.90	80.95	65.15	44.98	63.99	111	0	111	3½	Red Fork of Brazos river, Texas.
40	53.36	43.38	63.11	80.43	65.37	45.25	63.54	107	5	102	3½	Trinity river, Northern Texas.
41	53.26	46.26	65.45	79.56	63.76	46.16	63.73	106	— 2	108	2	Clear Fork of Brazos river, Texas.
42	53.22	46.66	64.35	76.77	62.55	45.90	62.39	110	5	105	2½	Oak creek, (Colorado river,) Texas.
43	55.49	46.48	64.91	82.43	66.86	48.86	65.76	112	5	107	3½	Brazos river, Texas.
44	56.97	45.81	64.79	82.31	67.80	49.58	66.12	103	4	99	2¼	Leona river, Texas.
45	56.10	46.88	65.86	80.65	66.98	49.46	65.74	103	8	91	4½	Near Colorado river, Texas.
46	52.41	43.09	62.86	76.96	62.46	47.24	62.38	100	7	93	2½	Fredericksburg, Texas.
47	53.64	45.74	65.27	77.63	64.30	45.79	63.25	104	10	94	3	San Saba river, Texas.
48	61.83	50.95	69.68	82.16	71.26	53.92	69.25	103	14	89	3½	San Antonio, Texas.
49	62.55	56.78	73.88	83.17	72.18	56.23	71.37	102	22	80	3	Nueces river, Texas.

CONSOLIDATED TABLE OF MEAN TEMPERATURES FOR MONTHS, SEASONS, AND

Stations.	Lat.	Long.	Altitude above sea.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	
	° ′	° ′	*Feet.*											
Fort Ewell	28 5	98 57	200	52.92	57.61	67.10	74.05	78.41	82.70	84.37	83.84	80.57	72.43	1
Corpus Christi	27 47	97 28	20	56.30	56.98	66.59	69.86	77.92	82.00	82.46	83.12	81.04	73.39	2
Fort Brown	25 54	97 26	50	59.80	64.40	69.21	75.14	80.21	82.32	83.95	83.83	80.67	74.49	3
Ringgold Barracks	26 23	99 2	200	58.39	63.41	70.67	77.05	82.00	84.65	85.18	86.13	81.45	74.96	4
Fort McIntosh	27 31	99 21	400	55.64	60.84	68.99	76.66	81.87	83.93	86.33	87.48	82.59	74.24	5
Fort Duncan	28 42	100 30	1,460	52.07	57.34	65.10	73.44	79.72	82.81	84.67	85.94	82.25	72.64	6
Fort Inge	29 10	99 47	845	49.46	55.39	62.63	68.02	75.37	79.40	81.53	82.61	78.72	68.54	7
Fort Lincoln	29 22	99 33	900	51.76	59.02	63.32	66.81	73.22	78.32	82.27	82.52	79.76	70.00	8
Fort Clark	29 17	100 25	1,000	47.21	49.38	61.46	70.18	75.66	79.15	80.96	81.06	77.23	69.33	9
Fort Fillmore	32 14	106 15	3,927	44.47	48.93	55.46	64.39	71.32	80.92	83.36	79.68	77.21	64.39	10
Fort Webster	32 47	108 4	6,350	40.59	40.47	46.21	53.10	59.43	70.11	75.14	69.89	63.08	53.85	11
Fort Conrad	33 34	107 9	4,576	37.08	43.00	52.28	61.54	65.66	74.64	80.09	77 64	76.93	59.89	12
Albuquerque	35 6	108 38	5,032	35.78	39.63	47.94	56.23	63.54	72.05	77.27	75.41	69.38	58.48	13
Cebolletta	35 15	107 20	6,200	34.90	39.36	44.50	51.36	61.65	72.52	77.44	75.65	68.45	58.24	14
Fort Marcy	35 41	106 2	6,846	31.45	33.25	40.71	51.28	57.06	68.84	72.57	69.98	61.93	51.27	15
Fort Union	35 54	104 57	6,670	33.08	33.40	39.31	49.24	56.35	65.83	69.39	66.83	58.80	49.07	16
Fort Massachusetts	37 32	105 23	8,365	19.69	22.24	31.28	44.82	49.44	58.20	63.48	62.21	51.69	43.03	17
Fort Defiance	35 44	109 15	6,500	26.18	30.78	38.30	46.58	51.15	64.00	69.88	66.96	56.19	46.24	18
Fort Yuma	32 32	114 36	355	56.45	58.03	66.12	73.46	76.73	87.29	92.27	90.29	86.12	76.53	19
San Diego	32 42	117 14	150	51.90	53.97	56.00	61.23	62.67	67.39	72.18	73.68	70.66	65.50	20
Rancho de Jurupa	34 0	117 25	1,000	54.01	54.87	56.78	62.58	63.66	70.29	73.77	73.25	72.06	67.46	21
Monterey	36 36	125 52	140	52.25	50.47	51.45	53.76	56.76	57.85	58.49	59.58	59.27	58.45	22
Fort Miller	37 0	119 40	402	47.04	53.01	56.68	62.86	68.81	83.16	90.24	83.03	76.58	67.52	23
Presidio San Francisco	37 48	122 26	150	49.60	51.78	52.87	55.37	55.29	56.86	57.90	57.22	58.26	57.91	24
Benicia Barracks	38 3	122 8	64	47.02	52.09	53.05	57.41	59.16	67.07	67.36	66.61	64.62	62.83	25
Camp Far West	39 7	121 18	150	45.33	48.45	51.29	59.20	67.00	71.66	73.89	73.00	66.88	64.89	26
Fort Reading	40 30	122 5	674	44.23	49.31	54.43	59.43	65.77	77.91	82.96	79.09	71.82	62.35	27
Fort Jones	41 36	122 52	2,570	31.37	37.46	43.11	49.29	54.69	61.56	71.56	68.66	62.72	51.84	28
Fort Orford	42 44	124 29	50	48.38	47.88	49.57	51.09	54.80	59.03	59.73	61.09	58.91	54.88	29
Fort Vancouver	45 40	122 30	50	40.56	41.66	44.14	52.55	58.95	62.67	68.71	65.56	60.81	53.30	30
Fort Dalles	45 36	120 55	350?	33.09	40.01	46.45	52.98	59.58	67.09	73.22	70.77	61.71	53.61	31
Fort Steilacoom	47 10	122 25	300	38.67	40.58	42.90	48.88	55.84	60.65	64.23	63.80	57.75	52.35	32
Great Salt Lake	40 46	112 6	4,351	27.12	35.01	39.75	50.20	65.25	71.29	80.55	.....	.....	.....	33

NOTE.—It was the intention of the compiler to include in this report a consolidated table of mean temperatures for months, seasons, and years, and of extremes of temperature, giving the results of *all* the observations made at the military posts from January, 1819, to January, 1860, a period of forty-one years. A very great amount of labor was expended in the preparation of such a table, involving the computation of nearly two and a half millions of observations. It was, however, found impossible to complete the table, with the necessary accuracy, in time for this report.

YEARS, AND OF EXTREMES OF TEMPERATURE; CORRECTED FROM REPORT OF 1856.

	Nov.	Dec.	Spring.	Sum.	Aut.	Win.	Year.	Max.	Min.	Range.	No. of years.	Locality.
1	64.77	56.89	73.18	83.64	72.59	55.81	71.30	100	19	81	2	Nueces river, Texas.
2	64.89	56.88	71.46	82.53	73.11	56.72	70.95	93	26	67	2¼	Corpus Christi, Texas.
3	69.14	62.64	74.85	83.37	74.77	62.28	73.82	98	22	76	7½	Brownsville, Texas.
4	67.23	59.41	76.57	85.32	74.54	60.40	74.21	108	18	90	5¾	Rio Grande, Texas.
5	64.69	55.61	75.84	85.91	73.84	57.36	73.24	108	17	91	6	Rio Grande, Texas.
6	61.86	52.34	72.75	84.48	72.25	53.92	70.85	109	12	97	6	Rio Grande, Texas.
7	59.16	51.46	68.67	81.18	68.81	52.10	67.69	106	19	87	6	Leona river, Texas.
8	55.64	53.79	67.78	81.04	68.47	54.86	68.04	101	12	89	2	Rio Seco, Texas.
9	60.31	52.61	69.10	80.39	68.96	49.73	67.04	103	15	88	3	Rio Las Moras, Texas.
10	51.22	46.45	63.72	81.32	64.27	46.62	63.98	107	10	97	3¾	Near Mesilla, New Mexico.
11	43.61	42.82	52.91	71.71	53.51	41.29	54.85	100	12	88	2¾	Southern New Mexico.
12	45.58	38.52	59.83	77.46	60.80	39.53	59.40	101	4	97	3½	Southern New Mexico.
13	44.12	36.04	55.90	74.91	57.33	37.15	56.32	107	— 4	111	4½	Albuquerque, New Mexico.
14	43.70	33.69	52.50	75.20	56.80	35.98	55.12	100	3	97	2¼	Ceboletta, New Mexico.
15	38.57	30.21	49.68	70.46	50.59	31.64	50.59	102	—11	113	4¼	Santa Fé, New Mexico.
16	37.14	31.19	48.30	67.35	48.34	32.56	49.14	93	— 9	102	5½	Northern New Mexico.
17	27.08	20.29	41.84	61.29	40.58	20.74	41.11	89	—13	102	2	Northern New Mexico.
18	35.66	29.27	45.34	66.95	46.03	28.74	46.76	95	—20	115	3¼	Western New Mexico.
19	64.41	55.93	72.10	89.95	75.69	56.80	73.63	121	19	102	3½	Colorado river, California.
20	56.92	51.70	59.97	71.08	64.36	52.29	61.93	102	26	76	5½	San Diego, California.
21	57.81	52.78	61.01	72.44	65.78	53.89	63.28	96	28	68	2¾	Santa Ana valley, California.
22	54.16	50.93	53.99	58.64	57.29	51.22	55.29	96	32	64	4	Monterey, California.
23	55.48	48.01	62.78	85.48	66.53	49.35	66.04	118	23	95	3¾	San Joaquin river, California.
24	54.31	51.20	54.51	57.33	56.83	50.86	54.88	89	27	62	3¾	Near San Francisco, California.
25	54.26	47.95	56.54	67.01	60.57	49.02	58.29	105	19	86	5½	Benicia, California.
26	52.04	45.09	59.16	72.85	61.27	46.29	59.89	107	24	83	2½	Sacramento valley, California.
27	52.91	44.82	59.88	80.00	62.36	46.12	62.09	110	15	95	3	Upper Sacramento valley, California.
28	41.81	32.50	49.03	67.26	52.12	33.78	50.54	101	5	96	2¼	Scott's valley, California.
29	51.92	46.17	51.82	59.95	55.24	47.48	53.62	80	30	50	2	Port Orford, Oregon.
30	46.51	36.51	51.88	65.65	53.54	39.54	52.65	98	— 1	99	4½	Columbia river, Washington.
31	41.33	33.66	53.00	70.36	52.22	35.59	52.79	105	—15	120	3½	Columbia river, Oregon.
32	44.97	39.26	49.21	62.89	51.69	39.50	50.82	94	— 1	95	5¾	Puget's Sound, Washington.
33	41.73	34.11	51.73	75.92	.....	32.08	.....	.....	.....	.....	1½	Utah.

The mean temperatures for months, seasons, and years, given in this table, are recalculated from the report published in 1856, and do not embrace the observations made since January, 1855. The "maximum," "minimum," and "range" were obtained for the uncompleted table above referred to, and include those results for the whole period during which observations have been made; that is, from January, 1819, to January, 1860. The column "No. of years," gives the periods for which the *mean* temperatures of each station have been calculated.

R. H. C.

CONSOLIDATED TABLE OF MEASUREMENTS OF RAIN FOR MONTHS, SEASONS, AND YEARS; FROM THE REPORT OF 1856.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Hancock Barracks	2.86	1.91	1.84	2.83	2.95	3.82	4.83	2.27	2.94	3.92	3.29	2.71	7.62	11 92	9.95	7.48	36.97
Fort Sullivan	3.17	3.18	3.16	2.80	2.92	2.15	4.28	3.62	3.17	3.29	3.39	4.26	8.88	10.05	9.85	10.61	39.39
Fort Preble	3.37	3.39	2.92	4.14	5.05	3.39	2.78	4.11	3.31	4.25	4.37	4.17	12.11	10.28	11.93	10.93	45.25
Fort Constitution	2.42	2.64	2.16	3.44	3.43	3.01	2.40	3.80	2.43	3.29	3.23	3.32	9.03	9.21	8.95	8.38	35.57
Watertown Arsenal	2.87	2.85	3.30	3.70	3.75	3.61	2.64	4.41	3.00	3.85	3.98	4.11	10.75	10.66	10.83	9.83	42.07
Fort Independence	3.62	2.84	1.53	3.72	3.35	2.42	3.00	3.00	2.52	2.39	4.36	2.55	8.60	8.42	9.27	9.01	35.30
Fort Adams	4 10	4.17	4.38	5.00	4.51	2.87	3.74	4.83	3.12	5.15	5.39	5.20	13.89	11.44	13.66	13.47	52.46
Fort Trumbull	3.61	3.76	4.67	2.63	3.60	2.49	3.34	4.82	1.94	5.50	5.72	3.58	10.90	10.65	13.16	10.98	45.69
Fort Hamilton	2.98	3.57	3.65	3.42	4.62	3.65	3.55	4.44	3.38	2.80	3.75	3.84	11.69	11.64	9.93	10.39	43.65
Fort Columbus	2.78	2.92	3.44	3.33	4.78	3.46	3.17	4.70	3.31	3.40	3.59	3.93	11.55	11.33	10.30	9.63	42.23
West Point	3.50	3.44	3.71	4.55	6.18	4.79	5.50	5.15	3.89	4.34	4.39	4.71	14.44	15.44	12.62	11.65	54.15
Watervliet Arsenal[1]	2.07	2.08	2.19	2.92	3.55	3.73	3.51	3.10	3.24	3.00	2.93	2.33	8.66	10.34	9.17	6.38	34.55
Plattsburg Barracks	1.38	1.20	2.18	2.55	3.63	3.51	3.22	3.30	3.72	3.67	2.66	2.37	8.36	10.03	10.05	4.95	33.39
Madison Barracks	2.49	2.47	3.05	2.66	3.23	2.75	4.51	2.97	3.78	5.13	3.60	3.14	8.94	10.23	12.51	8.10	39.78
Fort Ontario	2.02	2.07	1.93	1.98	2.27	3.17	2.22	2.24	2.31	4.35	3.11	3.21	6.18	7.63	9.77	7.30	30.88
Fort Niagara	2.25	1.89	2.12	2.20	2.55	3.28	3 49	3.01	3.95	2.37	2.36	2.27	6.87	9.81	8.68	6.41	31.77
Buffalo Barracks	3.33	1.54	3.08	2.59	2.83	2.77	3.05	3.41	4.94	4.72	3.88	2.66	8.50	9.23	13.54	7.53	38.80
Alleghany Arsenal	2.18	2.17	2.50	3.10	3.58	3.56	2.97	3.34	2.68	2.87	2.68	3.13	9.38	9.87	8.23	7.48	34.96
Carlisle Barracks	1.67	2.41	2.92	2.75	3.38	2.68	4.69	2.30	2.27	2.62	2.79	3.53	9.05	9.67	7.68	7.61	34.01
Fort Mifflin	2.43	2.60	4.63	3.44	4.90	2.87	4.77	4.98	3.19	3.72	3.51	4.23	12.97	12.62	10.42	9.26	45.27
Fort McHenry	2.64	2.70	3.86	3.56	3.71	3.28	3.50	4.26	3.31	3.53	3.68	3.97	11.13	11.04	10.52	9.31	42.00
Fort Severn	3.96	3.02	3.13	1.97	4.55	4.03	4.14	3.83	8.42	3.46	4.29	3.81	9.65	12.00	16.17	10.79	48.61
Fort Washington	2.37	3.81	3.17	5.30	4.10	2.16	3.90	6.78	2.86	2.08	5.28	3 21	12.57	12.84	10.22	9.39	45.02
Fort Monroe	3.48	3.01	3.74	3.01	4.17	4.41	6.10	6.29	4.68	3.61	3.58	4.81	10.92	16.80	11.87	11.30	50.89
Fort Johnston	2.64	1.75	3.49	0.59	2.75	2.44	5.18	7.90	9.86	2.42	4.04	2.95	6.83	15.52	16.32	7.34	46.01
Fort Moultrie	2.39	2.33	4.06	1.75	4.08	4.15	6.72	6.58	5.83	2.44	1.79	2.80	9.89	17.45	10.06	7.52	44.92
Augusta Arsenal	2.74	2.43	4.69	1.47	.82	1.30	.79	1.57	1.43	1.89	1.19	3.88	6.78	3.66	4.51	8.05	23.00
Oglethorpe Barracks	3.57	2.18	7.11	2.91	3.43	4.65	8.79	8.06	4.07	1.95	1.19	3.42	13.45	23.50	7.21	9.17	53.33
Fort Marion	2.09	1.63	2.34	1.56	2.00	4.27	3.24	3.03	5.85	2.42	1.29	2.08	5.90	10.54	9.56	5.80	31.80
Fort Shannon	.93	2.64	7.16	2.47	2.86	6 54	7.35	7.60	4.33	3.78	1.60	1.42	12.49	21.49	9.71	4.99	48.68
Fort Pierce (Capron)	4.45	2.72	3.01	3.85	4.27	14.28	5.16	6.81	9.27	5.36	2.21	1.59	11.13	26.25	16.84	8.76	62.98
Key West	2.86	1.38	4.21	1.55	2.58	8.29	3.35	4.95	7.79	6.38	1.18	3.13	8.34	16.59	15.35	7.37	47.65
Fort Myers	3.56	2.24	4.60	3.14	3.28	15.83	8.45	7.87	10.29	.98	.69	2.26	11.02	32.15	11.96	8.06	63.19
Fort Brooke	2.20	3.01	3.37	1.95	3.24	7.04	11.10	10.10	6.23	2.40	2.00	2.83	8.56	28.24	10.63	8.04	55.47
Fort Meade	1.07	1.01	1.64	1.78	5.34	7.79	7.55	6.35	4.85	1.50	.56	1.79	8.76	20.68	6.91	3.87	40.22
Cedar Keys	2.80	5.30	1.80	1.40	.90	6.40	4.07	11.88	4.97	3.80	3.17	2.01	4.10	22.35	11.94	10.11	48.50
Fort Barrancas	3.87	4.95	5.87	2.94	4.05	4.66	6.80	7.23	5.25	2.41	6.05	2.90	12.86	18.69	13.71	11.72	56.98
Mount Vernon Arsenal	6.80	6.04	4.59	4.21	4.62	6.14	6.30	6.40	3.05	3.92	6.18	5.25	13.42	18.84	13.15	18.09	63.50
Fort Wood	5.57	1.88	6.48	5.37	4.28	7.03	5.63	4.64	4.13	5.65	5.82	4.15	16.13	17.30	15.60	11.60	60.63
Fort Pike	5.62	2.41	7.13	4.98	4.59	10.49	8.46	4.66	8.43	3.72	6.81	4.62	16.70	23.61	18.96	12.65	71.92
New Orleans Barracks	5.61	2.90	3.90	3.29	4.10	4.97	6.65	5.65	2.29	2.74	4.68	4.20	11.29	17.28	9.62	12.71	50.90
Baton Rouge	5.26	4.91	4.68	5.22	5.18	5.52	7.42	6.20	3.91	2.67	5.90	5.23	15.08	19.14	12.48	15.40	62.10
Fort Jesup	4.70	2.76	5.02	4.86	3.80	4.61	3.36	2.97	3.02	3.80	2.92	4.03	13.68	10.94	9.74	11.49	45.85
Fort Towson	3.13	2.97	4.38	5.33	5.84	5.78	4.62	3.96	3.41	4.59	4.23	2.84	15.55	14.36	12.23	8.94	51.08
Fort Washita	1.65	2.88	3.27	3.94	5.98	5.04	3.57	2.66	3.87	3.06	3.85	1.89	13.19	11.27	10.78	6.42	41.66
Fort Smith	1.96	2.17	2.92	5.10	1.46	4.74	3.82	4.47	3.01	3.43	3.49	2.53	12.48	13.03	9.93	6.66	42.10
Fort Gibson	1.83	2.26	2.54	4.19	4.65	4.30	2.75	2.63	2.30	3.85	3.10	2.06	11.38	9.68	9.25	6.15	36.46
Fort Scott	1.92	1.18	1.79	3.70	7.08	8.13	4.55	3.69	2.30	2.66	3.43	1.69	12.57	16.37	8.39	4.79	42.12

[1] Measurements of snow omitted; incomplete. A series of twenty years' observation at Albany gives 30 inches as the mean annual precipitation

CONSOLIDATED TABLE OF MEASUREMENTS OF RAIN FOR MONTHS, SEASONS, AND YEARS, FROM THE REPORT OF 1856.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Jefferson Barracks	1.91	2.04	3.32	3.06	4.18	5.07	3.67	4.14	2.88	2.76	2.38	2.42	10.56	12.88	8.02	6.37	37.83
St. Louis Arsenal	1.93	3.37	3.82	4.16	4.88	6.94	4.00	3.15	2.38	3.23	3.10	1.99	12.86	14.09	8.71	6.29	41.95
Detroit Barracks	2.18	1.38	2.86	2.92	2.73	3.91	3.20	2.18	3.31	2.04	2.06	1.30	8.51	9.29	7.41	4.86	30.07
Fort Gratiot	2.19	1.76	2.82	2.51	2 69	3.74	3.37	2.88	4.10	2.66	2.10	1.80	8.02	9.99	8.86	5.75	32.62
Fort Mackinac	1.25	.82	1.14	1.21	2.32	2.81	3.20	2.87	2.97	2.12	1.92	1.24	4.67	8.88	7.01	3.31	23.87
Fort Brady	1.84	1.13	1.37	1.83	2.24	2.83	3.75	3.39	4.33	3.35	3.08	2.21	5.44	9.97	10.76	5.18	31.35
Fort Howard	1.19	.87	1.70	3.33	3.97	4.93	5 51	4.01	3.11	2.36	2.37	1.30	9.00	14.45	7.84	3.36	34.65
Fort Winnebago	.91	.82	1.07	2.26	2.25	4.24	4.21	3.01	3.62	2.00	2.01	1.09	5.58	11.46	7.63	2.82	27.49
Fort Crawford	1.19	1.24	1.92	2.99	2.72	3.74	3.48	4.05	4.06	2.04	1.80	1.57	7.63	11.87	7.90	4 00	31.40
Fort Atkinson	.71	.83	2.54	4.68	5.00	6.68	8.67	5.08	2.81	1.51	.50	.73	12.22	20.43	4.82	2.27	39.74
Fort Des Moines	.95	.67	1.42	3.83	1.61	6.58	2.01	2.34	3.58	1.00	.32	2.25	6.86	10.93	4.90	3.87	26.56
Fort Snelling	.73	.52	1.30	2.14	3.17	3.63	4.11	3.18	3.32	1.35	1.31	.67	6.61	10.92	5.98	1.92	25.43
Fort Ripley	.86	.37	1.80	1.42	3.09	5.15	5.20	2.27	4.92	1.30	2.20	.90	6.31	12.62	8.42	2.13	29.48
Fort Leavenworth	.72	1.01	1.61	2.74	3.62	5.80	3.15	3.29	3.32	1.84	2.17	1.02	7.97	12.24	7.33	2.75	30.29
Fort Dodge	.65	.42	1.43	3.04	3.45	5.16	1.57	1.42	2.55	3.26	2.38	1.99	7.92	8.15	8.19	3.06	27.32
Fort Kearny	.50	.48	1.55	2.68	6.57	4.36	5.07	2.62	1.83	.88	1.11	.33	10.80	12.05	3.82	1.31	27.98
Fort Laramie	.27	.71	1.37	1.93	5.39	2.95	1.83	.92	1.33	1.26	1.37	.65	8.69	5.70	3.96	1.63	19.98
Fort Arbuckle	.51	3.01	1.08	2.08	4.99	3.95	2.68	2.35	2.98	2.76	3.16	1.02	8.15	8.98	8.90	4.54	30.57
Fort Belknap	.06	1.07	.83	1.36	4.90	4.74	1.14	.43	1.05	3.79	1.41	.62	7.09	6.31	6.85	1.75	22.00
Fort Worth	1.56	4.54	3.61	4.30	6.59	3.73	2.38	2.69	2.06	3.29	4.14	1.97	14.50	8.80	9.49	8.07	40.86
Phantom Hill	.26	.80	.51	.45	2.85	2.90	1.15	.03	2.55	3.41	1.34	.94	3.84	4.08	7.30	2.00	17.22
Fort Chadbourne	.60	1.55	.75	1.57	6.20	4.61	3.36	2.49	3.29	3.27	2.43	1.76	8.52	10.46	8.99	3.91	31.88
Fort Graham	1.42	5.24	4.55	4.53	2.90	2.71	2.15	2.06	.80	4.24	4.73	5.25	11.98	6.02	9.77	11.91	40.58
Fort Croghan	1.44	4.61	4.72	3.88	3.01	3.33	3.39	1.08	2.24	2.11	3.89	2.86	11.61	7.80	8.24	8.91	36.56
Fort McKavett	.62	1.57	1.23	1.29	3.31	2.92	2.92	.85	3.64	3.02	1.39	.48	5.86	6.69	8.05	2.67	23.27
San Antonio	.80	4.41	2.94	2.80	2.89	6.15	3.23	.84	2.80	1.05	3.72	2.14	8.63	10.22	7.57	7.35	33.77
Corpus Christi	3.96	2.37	1.25	4.01	4.68	5.63	4.89	2.91	6.73	2.37	1.05	1.26	9.94	13.43	10.15	7.59	41.11
Fort Ewell	.76	4.73	.71	1.12	5.11	7.85	2.90	2.43	4.96	2.36	.49	1.16	6.94	13.18	7.81	6.65	34.58
Fort Merrill	.23	2.09	.09	1.62	3.43	4.10	6.13	3 40	4.60	1.38	1.82	1.93	5.14	13.63	7.80	4.25	30.82
Fort Brown	1.61	2.25	1.20	.56	2.21	4.55	1.95	2.76	6.73	5.68	2.67	1.48	3.97	9.26	15.08	5.34	33.65
Ringgold Barracks	1.24	1.18	.72	1.08	2.69	3.47	2.13	1.50	3.22	2.15	.94	.63	4.49	7.10	6.31	3.05	20.95
Fort McIntosh	.26	1.46	.59	1.03	2.45	3.61	2.48	1.24	3.02	.96	1.08	.48	4.07	7.33	5.06	2.20	18.66
Fort Duncan	.26	1.27	1.31	.71	1.50	5.63	3.35	.93	3.28	1.43	1.61	.89	3.55	9.91	6.32	2.42	22.20
Fort Inge	.64	2.21	1.79	1.26	3.01	5.38	3.66	2.02	2.21	2 70	2.08	1.03	6.06	11.06	6.99	3.88	27.99
Fort Clark	.30	1.36	.86	1.14	2.70	5.03	1.98	1.52	2.37	2.21	1.78	.65	4.60	8.53	6.36	2.31	21.80
El Paso and Fort Bliss	0	.90	0	0	.70	.02	.57	2.97	1.88	1.07	2.30	.80	.70	3.56	5.25	1.70	11.21
Fort Fillmore	.01	.10	.21	.20	.34	.54	2.50	1.40	1.26	.54	1.50	.63	.75	4.44	3.30	.74	9.23
Fort Conrad	.06	.11	.14	.01	.33	.78	1.28	1.18	1.25	.50	.78	.31	.51	3.24	2.53	.48	6.76
Albuquerque	.14	.20	.38	.32	.40	1.72	1.36	2.37	.86	.50	.71	.46	1.10	5.45	2.07	.80	9.42
Cebolleta	.30	1.61	.36	.75	.12	.14	.55	1.22	3.60	1 59	.68	1.13	1.23	1.91	5.87	3.04	12.05
Santa Fé	.31	.57	1.29	.80	.74	1.32	4.18	3.40	2.55	1.60	1.87	1.20	2.83	8.90	6.02	2.08	19.83
Fort Union	.19	.09	.37	.53	1.57	2.00	4.07	3.55	2.45	1.25	1.42	.85	2.47	9.62	5.12	2.03	19.24
Fort Massachusetts	.23	.72	.94	.42	2.14	.74	2.59	2.05	1.39	1.10	6.34	1.88	3.50	5.38	8.83	2.83	20.54
Fort Defiance	1.08	.65	1.68	.51	.72	1.11	1.57	3.73	2.64	1.05	.98	.92	2.91	6.41	4.67	2.65	16.64
Fort Yuma	.03	.39	.20	.07	0	0	.18	1.13	.58	.10	.18	.38	.27	1.31	.86	.80	3.24
San Diego	.83	.01	1.40	.77	.57	.15	.01	.39	.03	.05	1.16	3.06	2.74	.55	1.24	5.90	10.43
Rancho de Jurupa	.95	1.59	3.12	.33	1.14	0	0	.09	0	0	1.67	4.97	1.59	.09	1.67	7.42	13.77
Monterey	1.68	1.50	3.27	.63	.53	.13	.08	0	.01	.33	1.31	2.73	4.43	.21	1.45	5.91	12.20

CONSOLIDATED TABLE OF MEASUREMENTS OF RAIN FOR MONTHS, SEASONS, AND YEARS, FROM THE REPORT OF 1856.

Stations.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Spring.	Summer	Autumn	Winter.	Year.
Fort Miller	1.34	1.69	6.40	1.81	1.36	.01	.01	0	.05	.19	3.35	8.31	9.57	.02	3.59	11.34	24.51
San Francisco	3.23	3.31	4.61	3.72	.48	.02	0	.01	.09	.81	2.44	1.84	8.81	.03	3.37	11.38	23.59
Benicia Barracks	2.18	1.66	3.48	2.33	.59	.01	0	0	.01	.69	1.95	3.72	6.40	.01	2.65	7.56	16.62
Sacramento	3.32	.63	6.36	2.23	.43	0	0	0	.18	.10	3.46	4.61	9.02	0	3.74	8.56	21.32
Fort Reading	3.75	4.09	4.53	3.92	2.85	.31	0	.08	.01	.92	3.96	4.60	11.30	.39	4.89	12.44	29.02
Fort Jones	1.97	2.07	3.13	1.50	.75	.52	.16	.21	0	2.33	2.97	1.16	5.38	.89	5.30	5.20	16.77
Fort Orford	8.81	6.35	8.24	5.61	5.21	1.06	.16	1.78	.19	11.10	8.31	11.64	19.12	3.00	19.60	26.80	68.52
Fort Vancouver	9.62	3.38	3.79	2.74	2.75	2.68	2.85	.70	.99	2.55	6.76	6.69	9.28	6.23	10.30	19.69	45.50
Fort Dalles	3.16	1.04	1.07	.99	.57	.13	.03	.26	.78	.83	2.55	2.91	2.63	.42	4.16	7.11	14.32
Fort Steilacoom*	15.30	1.47	2.20	3.09	1.95	.55	.36	.81	2.68	3.96	3.02	3.93	7.24	1.72	9.66	20.70	39.32

* The measurements of rain at Fort Steilacoom having been incorrectly made for the years 1852, 1853, and 1854, the amount for 1851 only is given in this table.

NOTE.

This table gives the mean results of measurements of rain at the military posts from 1836 to 1854, inclusive—nineteen years. It has been found impracticable to designate, in the table, the years and parts of years during which the amount of rain was measured at each post; but this information may be obtained by consulting the report of 1856, or the Army Meteorological Register published in 1855.

It was the intention of the compiler to incorporate in this table the results of all measurements of rain at the military posts, from 1836 (when rain gauges were first furnished) to 1860, but it was found impracticable to do so in time for this report.

R. H. C.

NOTES AND ERRATA.

NOTES AND ERRATA.

REPORT ON THE SICKNESS AND MORTALITY IN THE ARMY.

NOTES.

The acknowledgments and thanks of the compiler are justly due to Hospital Steward Charles Harling, United States Army, for his very able and intelligent assistance in the preparation of this report, and in its passage through the press.

It has been ascertained that some errors escaped detection in the proof sheets. That these are not more numerous is due as much to the very great care exercised by both compositors and proof readers as to the supervision of the compiler.

ERRATA.

Page 11, in first table, for "fouth" read *fourth*.
11, in second table, for "cartarrhus" read *catarrhus*.
19, line twenty-one from top, for "affluvia" read *effluvia*.
29, third table, last column, for "12" read 18.
37, line eight from top, for "cretacious" read *cretaceous*.
38, paragraph "Plants," for "and and" read *and*.
97, line four from bottom, for "This first" read *The first*
153, bottom line, for "arisin" read *arising*.
156, 157, 159, 160, for "hammock" read *kummock*.
184, line twenty-nine from top, for "conjestions" read *congestions*.
193, line four from top, for "prevelent" read *prevalent*,
208, line eleven from bottom, for "weasle" read *weasel*.
263, line three from bottom, for "ready" read *readily*.
286, line twenty-nine from top, for "expistaxis" read *epistaxis*.
299, line twenty-six from bottom, for "abobes" read *adobes*.
323, in table, for "Dilirium tremens" read *Delirium tremens*.
330, line ten from top, for "of present" read *of the present*.

In the fifth column of the table, on page 195, the figures "34" should read 24. This primary error renders the following corrections necessary in that table:

For 120, 1 in 20, 9.1,	For 427, 2,823, 1 in 74.3, 214,
read 110, 1 in 18, 8.3.	read 417, 2,813, 1 in 74, 213.

The misplacement of the figures "37" from the appropriate line "obstipatio" to "hepatitis chronica," in one of the abstracts (page 79) from which the tables on page 43 were compiled, led to an error which affected so many of the results given in those tables as to render it advisable to reprint them with the proper corrections. The error was detected in reading the proof of the abstracts, and corrected therein, but the tables had then been printed.

DISEASES OF THE ORGANS CONNECTED WITH THE DIGESTIVE SYSTEM.

(Corrected from page 43.)

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	14,185.		13,233.		13,200.		14,956.		13,892.				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Cholera Asiatica	1	0	31	15	86	13	0	0	118	28	1 in	4	.....
Diarrhœa	332	7	717	0	1,862	5	1,041	4	3,952	16	1 in	247	284
Dysenteria acuta	80	1	169	1	388	1	181	1	818	4	1 in	202	59
Dysenteria chronica	6	4	2	1	16	3	18	1	42	9	1 in	5	3
Enteritis	0	1	3	0	5	0	7	1	15	2	1 in	7	1
Hepatitis acuta	2	0	9	0	12	0	6	0	29	0	0 in	29	2
Hepatitis chronica	6	1	6	1	3	0	6	1	21	3	1 in	7	1.5
Obstipatio	198	0	280	0	321	0	264	0	1,063	0	0 in	1,063	76
All other diseases of this class	284	0	329	0	381	0	337	5	1,331	5	1 in	226	96
Total	909	14	1,546	18	3,074	22	1,860	13	7,389	67	1 in	110	539
Exclusive of cholera	.....	.....	.....	.....	.....	.....	.....	.....	7,271	39	1 in	186	523

DISEASES OF THE RESPIRATORY SYSTEM.

(Corrected from page 43.)

Quarters	FIRST.		SECOND.		THIRD.		FOURTH.		YEAR.		Proportion of deaths to cases.		Ratio of cases per 1,000 of mean strength.
Strength	14,185.		13,233.		13,200.		14,956.		13,892.				
Diseases.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
Bronchitis acuta et chronica	96	3	45	1	44	1	104	0	289	5	1 in	58	21
Catarrhus	1,396	0	729	0	560	0	1,401	0	4,086	0	0 in	4,086	295
Phthisis pulmonalis	9	9	10	6	14	8	11	4	44	27	1 in	1.6	3.1
Pleuritis	69	0	51	2	28	0	49	1	197	3	1 in	66	14
Pneumonia	37	7	44	1	12	1	42	6	135	15	1 in	9	9
All other diseases of this class	30	1	33	0	55	0	26	1	144	2	1 in	72	10
Total	1,637	20	912	10	713	10	1,633	12	4,895	52	1 in	94	352
Rheumatismus	379	2	443	0	416	1	483	0	1,721	3	1 in	574	123

ERRATA IN THE STATISTICAL REPORT OF 1856.

The minute examination of the "Statistical Report on the Sickness and Mortality in the Army from January, 1839, to January, 1855," necessary to the preparation of the present report, has led to the detection of the following errors:

Page 31, between the two tables, for "4.5 per cent.," read 4.5 *to* 1.
44, third line from bottom, for "31.40 inches," read 34.65 *inches*.
117, bottom line, "Total cases," for "5,107," read 5,109.
121, bottom line, "Total cases," for "6,125," read 6,135.
127, bottom line, "Total cases," for "3,839," read 3,836.
131, bottom line, "Total cases," for "4,320," read 4,313.
146, eighth line from top, for "2.19 per cent.," read 2.19 *to* 1.
203, bottom line, "Total cases," for "5,253," read 5,255.
250, between the two tables, for "cases treated to the number of troops," read *deaths to cases treated*.
289, bottom line, "Total died," for "16," read 17.
301, bottom line, "Total cases," for "6,769," read 6,789.
334, between the two tables, for "The ratio of deaths to the number of troops," read *The ratio of deaths to cases treated*.
405, bottom line, "Total cases," for "3,452," read 3,482.
426, second line from top, for "Cañoncito honito," read *Cañoncito Bonito*.
441, fourteenth line from bottom, for "illy lighted," read *ill lighted*.
443, nineteenth line from top, for "is rest and seclusion," read *are rest and seclusion*.
492, Mean strength 1843, for "9,636," read 9,863.
493, bottom line of table, "Total cases," for "352,685," read 352,785.
494, last line but one, for "1 in 14," read 1 *in* 114. (This error was caused by the breaking of the type.)

METEOROLOGICAL REGISTER.

EXPLANATORY REMARKS.

In the preparation of the meteorological tables submitted as an appendix to this report, the compiler has made every effort to avoid errors and to present the results of the observations with as much accuracy as possible. The proof sheets have been compared not only with the "copy," but also with the original registers. In no instance has an original record been altered, without the fact and the reason being stated in a note. The compiler considers it due to himself to state, what, indeed, is self-evident, that he is not responsible for the *correctness* of the observations as originally recorded by the observers. The directions given for the guidance of medical officers in taking and recording meteorological observations are clear and concise, and it is to be presumed that they have been adhered to, unless there be evidence to the contrary.

It is not expected that these registers will prove to be free from errors, especially in the *secondary results*, or results obtained by calculation. These it would be impossible to examine critically in the time allowed for reading the proof. As regards *primary results*, the only *known* errors are the following:

Page 347, Fort Fillmore, 2 P. M., for "70.16," read 90.16.
427, Fort Bridger, range of temperature, for "38 | 20 | 18," read 38 | —20 | 58.
457, seventh line from top, range of temperature, for "96 | 20 | 76," read 93 | —9 | 102.

There is reason to believe that at some few stations the directions respecting the position of the thermometer have not been observed, and that the instrument has been exposed to either the "direct or reflected rays of the sun." There is satisfactory evidence that such has been the case at Albuquerque and at Fort Steilacoom, but for how long a time is not known.

There is also intrinsic evidence that the measurements of rain are occasionally erroneous; that the lower part of the measuring scale has been read in *tenths* instead of *hundredths* of an inch, and the upper part in *inches* instead of tenths and twentieths of an inch. Where erroneous measurements were suspected, the endeavor has been to ascertain the fact and apply the proper correction. At Fort Steilacoom the error, as detected and reported by Assistant Surgeon George Suckley, consisted in applying the measuring stick with the point at the mark $\frac{1}{100}$, instead of at the bottom of the scale. At Albuquerque, the scale was read in *hundredths* instead of *tenths* of an inch, in 1858. This error is corrected in the summary for that year.

The correctness of the measurements of rain at Fort Hoskins and at the Block House, on Silitz river, Oregon, are vouched for by Assistant Surgeon Lewis Taylor.

The amount of rain at Fort Moultrie, Charleston harbor, in August, 1859, as reported by Surgeon B. M. Byrne, United States Army, was 24.42 inches, of which 16.45 inches fell in forty-seven and one half hours. In answer to an official inquiry, Surgeon Byrne vouched for the correctness of that record. His reply to a private note from myself, though not official, is introduced for the purpose of showing that unusual records of rain are not necessarily erroneous.

"FORT MOULTRIE, SOUTH CAROLINA, *September* 17, 1859.

"DEAR DOCTOR: I have received your letter of the 13th instant, and take no exception, I assure you, to the doubt which you express of the accuracy with which the register of the rain gauge was kept at this post during the month of August, especially when expressed in such courteous terms. On the contrary, I duly appreciate and respect the laudable solicitude which you manifest on the subject."

"Although 16.45 inches of rain was an excessively large quantity to have fallen in forty-seven and one half hours, I cannot perceive anything *incredible* in the occurrence. Neither can I regard the quantity of rain which may have fallen in Charleston as any criterion of that which fell at Sullivan's Island, any more than I could the quantity which fell in Washington or San Francisco. The rains in the Southern States, during the summer months, are extremely partial, as has been fully illustrated this season in different parts of South Carolina. In several districts in this State the crops have been destroyed by drought, while in districts *not five miles distant* they have met the same fate from excessive rains. A slip which I here inclose, from the Charleston Courier, exhibits in a very striking light the fact just stated. If *two inches* could fall during *one and half an hour* in one part of the city, while but 0.35 fell at the same time about *two miles distant*, it may be readily believed that even if only six and three quarter inches fell in Charleston during thirty hours, 16.45 or even twice that quantity might have fallen in forty-seven and one half hours at Sullivan's Island, which is *seven miles distant*. But, in order to remove, if possible, all scepticism, I shall detail some facts on the subject. My hospital attendant, on whose word I can implicitly rely, informs me that he emptied an *overflowing* rain-gauge *three* times between 2.30, P. M., on the 22d, and 2, P. M., on the 24th of August; and the hospital steward, whose fidelity I do not doubt, positively assures me that *he* emptied the gauge three times (not quite full each time) within the same period, and that he scrupulously noted the quantity which fell. As to myself, I entertain no *doubt* about the accuracy of the report, nor does the quantity noted at all surprise me."

* * * * * * * * * * * * *

"Although no 'desolating flood' was occasioned on this sandy island by the rain in question, the streets were for many hours impassable, and such was the deluge that the water on my kitchen floor (which is nearly on a level with the street) was over a foot in depth.

"Yours, very truly,

"B. M. BYRNE.

"Dr. R. H. COOLIDGE, *United States Army.*"

[*From the Charleston Courier.*]

A PARTIAL RAIN.—On Thursday there was a very heavy rain in the upper part of the city. From 2.30, P. M., to 4, P. M., a gauge at the United States Arsenal showed a fall of two inches, while, for the same time, the gauge of the City Registrar, in Tradd street, showed only 0.35 inches.

METEOROLOGICAL OBSERVATIONS.

The directions now in force for taking meteorological observations at the military posts are as follows:

The following "Directions for taking Meteorological Observations" will be observed, in all respects, with the utmost strictness and regularity.

The senior medical officer on duty at each military station is responsible for the accuracy of the meteorological observations made at the station, and will sign each register.

Within five days after the close of each month, a fair copy of the Meteorological Register (Form No. 11) will be transmitted, under cover, addressed *directly* to the Surgeon General.

The department expects that the medical officers will instruct hospital stewards in the proper mode of taking and recording these observations, and give to the subject their personal supervision. If the register be inspected daily, at the time of signing the morning report, errors would be promptly corrected with very little trouble to the medical officer.

DIRECTIONS.

Observations of the barometer, with its attached thermometer, of the thermometer (detached) and hygrometer, of the direction and force of the wind, and of the weather, will be made at 7 A. M., 2 P. M., and 9 P. M.

At every fall of rain, snow, hail, or sleet, the time of its commencement and end will be recorded, and the quantity which fell, as indicated by the rain gauge.

Each of the above observations will be registered, as soon as made, in its appropriate column. Should, however, an observation be from necessity omitted at any of the regular periods, it is enjoined that a blank be left on the register in the place where the omitted observation should have been recorded.

At the end of the month add up each column of figures on the register under the heads of "*Barometer*" and "*Thermometer Attached,*" and divide the sum by the number of days on which observations were made. The *quotient* will be placed at the foot of each column upon the line marked "*Monthly Mean.*"

One third of the sum of the three daily observations of the thermometer and hygrometer will be registered as the daily mean. The sum of the observations recorded in the 7 A. M., 2 P. M., and 9 P. M. columns, divided by the number of observations made during the month at those hours, respectively, will give the monthly mean for each of those hours; and one third of the sum of these three mean results is to be recorded as the average mean for the month. The correctness of this last result is to be proved by adding the "daily means" and dividing by the number of days of observation. The two results should approximate very closely, if the additions and divisions have been correctly made.

The "*Quantity of Rain*" will also be added up, and the *sum* placed at the foot of the proper column.

In all entries on the register, *fractions* will be expressed in *decimals*, carried out two points.

BAROMETER AND ATTACHED THERMOMETER.

The barometers now in use by the department are the syphon, of Bunten, and the cistern, of Green.

Special directions for observing those instruments, respectively, will be issued with each barometer, or will be furnished to the medical officers on application to the Surgeon General.

THERMOMETER (DETACHED.)

The thermometer will be placed in a situation having a free circulation of air, not exposed to the direct or reflected rays of the sun, and sheltered from rain. Its situation should be remote from massive walls, which slowly imbibe or part with caloric. In making observations, avoid breathing on the instrument, or touching it; and at night manage your lamp so as not to cause a rise of the mercury by its heat.

HYGROMETER.

The hygrometer adopted by this department consists essentially of a thermometer, the bulb of which is covered with floss silk inclosed in a piece of thin muslin, the ends of the silk sufficiently long to dip into water contained in a brass reservoir secured immediately below the bulb. In the top of this reservoir is a small opening to admit the silk, and to the front is attached a cylinder communicating with the interior by a small hole. The reservoir is to be kept always supplied with water poured into it through the cylinder, and the bulb will be constantly moistened by capillary absorption.

Should the floss silk become incrusted with saline particles, or with dirt, it may be cleaned by gently syringing it with warm water, or by means of a soft brush or camel's hair pencil; and in the event of the reservoir becoming filled with sediment, it may be removed from the case by taking out the screws by which it is attached, when it may be freely rinsed, and the sediment detached with a feather introduced through the opening in the top. To prevent such accumulations, the use of filtered rain or of distilled water is recommended. An extra quantity of silk will be issued with each instrument, and if it be found necessary to apply a new covering to the bulb, it may be readily done by first removing the reservoir as above directed, and taking care that the floss silk is accurately spread over the surface of the bulb inside of the gauze, before tying the thread above it. In those instruments in which the bulb of the hygrometer is curved forward, it will not be necessary to remove the reservoir in order to apply a new cover. In freezing weather, when the covering of the bulb remains dry, it will be necessary to moisten it with cold water, about fifteen or twenty minutes before the time for making the observation; the evaporation from the film of ice thus formed being slower than that from water. When recourse is had to this special moistening of the bulb, the fact will be noted in the column for remarks.

The directions respecting the position and exposure of the thermometer will be observed in regard to the hygrometer.

WIND.

The direction and estimated force of the wind will be registered together.

The direction will be expressed, as is customary, by the letters which denote the points of the compass, as W., S. W., &c. The force of the wind will be expressed by figures from 0 to 10, thus:

0	will signify	a calm.	6	will signify	a very strong wind.
1	"	a barely perceptible breeze.	7	"	a storm.
2	"	a gentle breeze.	8	"	a great storm.
3	"	a moderate breeze.	9	"	a hurricane.
4	"	a brisk breeze.	10	"	a violent hurricane.
5	"	a strong wind.			

For example: should the wind blow a brisk breeze from S. W., the expression in the register would be S. W., 4.

The whole number of times any point of the compass is recorded during the month gives the "number of observations," and that number divided by 3 gives the number of days from that point. The results thus obtained are to be registered under "Summary of Winds and Weather."

WEATHER.

Observations on the weather will be recorded as *fair* or *cloudy;* and the number of fair and cloudy days during the month will be ascertained by dividing the sum total of each record by 3. The number of days on which rain or snow will be noted separately.

RAIN.

The instrument used to measure the quantity of rain which falls is the conical rain gauge.

It will be kept remote from all elevated structures, at a distance at least equal to their height, and still further off where it can be conveniently done. It is to be suspended in a circular opening made in a board, which is to be fixed to a post, eight feet from the ground; the opening to be five inches in diameter, and beveled so as to fit the side of the gauge, into which the cap is to be fixed, base downwards, to prevent evaporation. The measurement is made by putting down perpendicularly to the bottom of the gauge the measuring stick, and applying it, from its point to the water mark, on the scale, which will express the quantity in inches or their decimals. The graduation of the scale is by hundredths of an inch for the first three tenths of an inch, and above that by tenths and half tenths. Parts of degrees will be measured by the eye, and set down in decimals. If a rain continue for any length of time, the quantity in the gauge will be measured at suitable intervals before the water rises high in it, and the measurements summed up at the close.

In freezing weather when the rain gauge cannot be used out of doors, it will be taken into the room, and a tin vessel will be substituted, for receiving the snow, rain, or sleet, that may then fall. This vessel must have its opening exactly equal to that of the rain gauge, and widen downwards to a sufficient depth with a considerable slope. It should be placed where nothing can obstruct the descending snow from entering, and where no drift snow can be blown into it. During a continued snow storm, the snow may be occasionally pressed down. The contents of the vessel must be melted by placing it near the fire, with a cover to prevent evaporation, and the water produced poured into the gauge to ascertain its quantity, which must then be entered on the register.

NOTE.

The military posts are supplied with the "Nine-inch Conical Rain Gauge." The contents of a cone nine inches high are equal to the contents of a cylinder three inches high, having its diameter equal to that of the base of the cone. Three inches fall of rain will fill such a cone. A description of this gauge, and the principles upon which it is constructed, may be found in "Silliman's Journal of Science and Arts," vol. 22, p. 321, July, 1832.

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